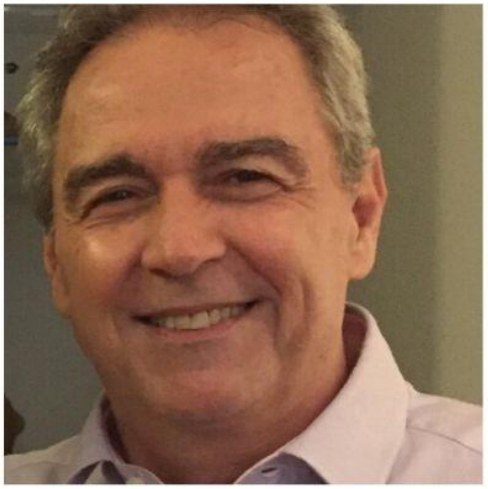
Homeopatia EM AÇÃO

EPIDEMIOLOGIA CLÍNICA HOMEOPÁTICA NA COVID-19



DR. MARCUS ZULIAN TEIXEIRA

PARTE 2

- Epidemiologia clínica em epidemias: premissas para a elaboração de estudos epidemiológicos.
- Tipos de estudos epidemiológicos em epidemias.

YouTube LIVE

QUINTA-FEIRA - 02|JULHO|2020
ÁS 20H (HORÁRIO DE BRASÍLIA)

AMHB
Associação Médica Homeopática Brasileira

https://www.youtube.com/watch?v=aEEDSXua0q0

MZT 02.07.20

Epidemiologia Clínica Homeopática na COVID-19

Marcus Zulian Teixeira, PhD, FMUSP

Epidemiologia Clínica Homeopática na COVID-19 (Parte 2)

- Epidemiologia clínica em epidemias: premissas para a elaboração de estudos epidemiológicos.
- Tipos de estudos epidemiológicos em epidemias.

- Epidemiologia clínica homeopática em epidemias: premissas para a elaboração de estudos epidemiológicos.
- Tipos de estudos epidemiológicos homeopáticos em epidemias.

“Mas para que fazer pesquisas científicas em homeopatia?!”

“Na minha prática clínica eu tenho **certeza** de que a homeopatia funciona e não preciso de pesquisas para provar isto!!!”

“Não podemos fazer pesquisas científicas porque a **episteme homeopática** é totalmente diferente da ‘ciência’ e da ‘medicina baseada em evidências’!!!”

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Falácia da Contracultura

MZT 02.07.20

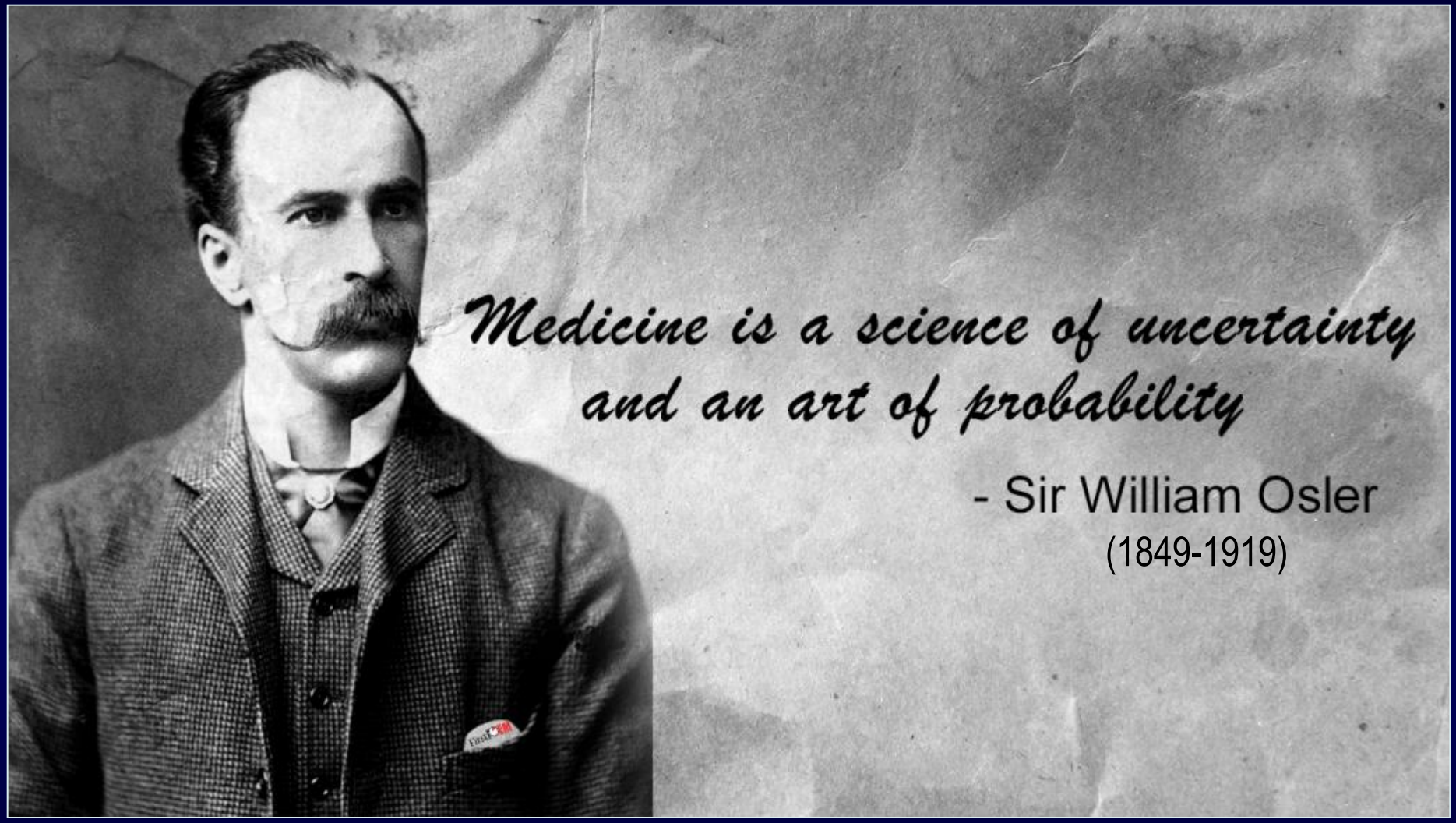
Não existem evidências científicas em homeopatia!!!
MZT 02.07.20

Não existem evidências científicas em homeopatia!!!
Falácia do Preconceito
MZT 02.07.20

"If a man will begin with certainties, he shall end in doubts; but if he will be content to begin with doubts, he shall end in certainties."

— Francis Bacon

(1561-1626)


Medicine is a science of uncertainty
and an art of probability
- Sir William Osler
(1849-1919)

Epidemiologia Clínica:
síntese dos princípios gerais e tipos de estudos epidemiológicos

Epidemiologia Clínica

- Definição

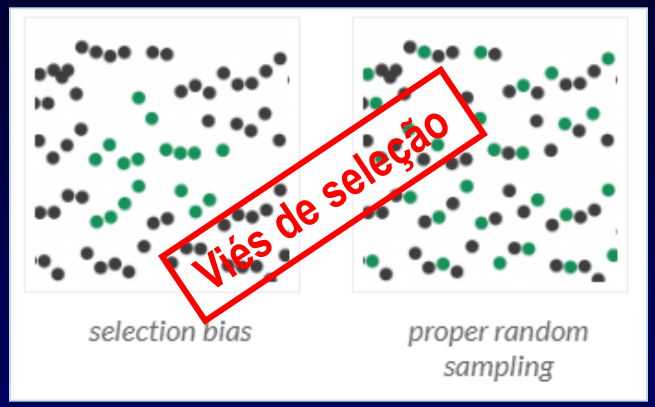
  Epidemiologia clínica é uma ciência que visa fazer predições sobre pacientes individuais através de estudos em grupos de pacientes similares, analisando eventos clínicos semelhantes e usando métodos científicos sólidos que assegurem maior veracidade ('certeza') nas conclusões.

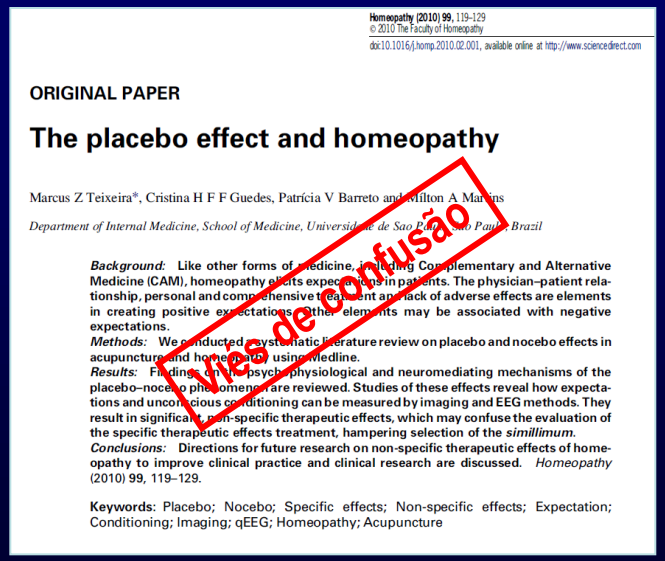
- Objetivo

  Desenvolver e aplicar métodos de observação clínica que permitam predições seguras, evitando ser enganado por erros sistemáticos (vieses) ou erros aleatórios (acaso), ajudando o médico a tomar decisões acertadas no cuidado dos pacientes ⇨ 'aperfeiçoar a prática clínica'.

Princípios Gerais da Epidemiologia Clínica

- População e Amostra
- Probabilidade, Risco e Estatística
- Medidas de Efeito Clínico (Riscos)
- Medida de Precisão (Intervalo de Confiança, IC)
- Validade Interna e Externa
- Confiabilidade e Acurácia dos Resultados
- Erro Sistemático ou Viés
- Erro Aleatório ou Acaso
- Significâncias Clínica e Estatítica
- Tamanho da Amostra
- Desfechos Clínicos





Homeopathy (2010) 99, 119–129
© 2010 The Faculty of Homeopathy
doi:10.1016/j.homp.2010.02.001, available online at http://www.sciencedirect.com

ORIGINAL PAPER

The placebo effect and homeopathy

Marcus Z Teixeira*, Cristina H F F Guedes, Patrícia V Barreto and Milton A Martins

Department of Internal Medicine, School of Medicine, Universidade de Sao Paulo, Sao Paulo, Brazil

Background: Like other forms of medicine, including Complementary and Alternative Medicine (CAM), homeopathy elicits expectations in patients. The physician–patient relationship, personal and comprehensive treatment and lack of adverse effects are elements in creating positive expectations. Other elements may be associated with negative expectations.
Methods: We conducted a systematic literature review on placebo and nocebo effects in acupuncture and homeopathy using Medline.
Results: Findings on the psychophysiological and neuromediating mechanisms of the placebo–nocebo phenomena are reviewed. Studies of these effects reveal how expectations and unconscious conditioning can be measured by imaging and EEG methods. They result in significant non-specific therapeutic effects, which may confuse the evaluation of the specific therapeutic effects treatment, hampering selection of the *simillimum*.
Conclusions: Directions for future research on non-specific therapeutic effects of homeopathy to improve clinical practice and clinical research are discussed. *Homeopathy* (2010) 99, 119–129.

Keywords: Placebo; Nocebo; Specific effects; Non-specific effects; Expectation; Conditioning; Imaging; qEEG; Homeopathy; Acupuncture

Ensaio clínico randomizado, duplo-cego e placebo-controlado

Viés e Acaso

- As duas fontes principais de erros - viés e acaso - não são mutuamente exclusivas. Muitas vezes, ambas estão presentes, e sua distinção auxilia na análise. Estes erros podem ser minimizados se a investigação clínica for planejada e conduzida de maneira apropriada (vieses) e submetida a uma adequada análise estatística dos dados (acaso).
- Reconhecer e minimizar (evitar) os vieses são atribuições do pesquisador. Quanto ao acaso, este não pode ser eliminado, mas sua influência pode ser minimizada pelo desenho apropriado do estudo, enfatizando o tamanho adequado da amostra em conjunto com a adequada análise estatística.

Ética na Pesquisa em Seres Humanos

ADVERTÊNCIA

Este texto não substitui o publicado no Diário Oficial da União

Ministério da Saúde
Conselho Nacional de Saúde

RESOLUÇÃO Nº 196, DE 10 DE OUTUBRO DE 1996

O Plenário do Conselho Nacional de Saúde em sua Quinquagésima Nona Reunião Ordinária, realizada nos dias 09 e 10 de outubro de 1996, no uso de suas competências regimentais e atribuições conferidas pela Lei nº 8.080, de 19 de setembro de 1990, e pela Lei nº 8.142, de 28 de dezembro de 1990, resolve:

Aprovar as seguintes diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos:

Tipos de Estudos Epidemiológicos

Tabela 3.1. Tipos de estudos epidemiológicos

Tipo de estudo	Nome alternativo	Unidade de estudo
Estudos observacionais		
Estudos descritivos (relato de caso ou série de casos)✓		
Estudos analíticos		
Ecológico	Correlação	População (conjunto)
Transversal	Prevalência	Indivíduo
Casos e controles	Caso-referência	Indivíduo
Coorte ✓	Longitudinal (*Follow-up*)	Indivíduo
Estudos Experimentais	**Estudos de intervenção**	
Ensaio clínico randomizado controlado ✓	Ensaios clínicos	Pacientes
Ensaio clínico randomizado controlado com grupos (*clusters*)		Grupos
Ensaios de campo		
Ensaios comunitários	Estudos de intervenção na comunidade	Indivíduos saudáveis na comunidade

Bonita R et al. Epidemiologia básica. 2.ed. São Paulo: Editora Santos; 2010.

JAMA Network | Open.

Original Investigation | Pediatrics

Clinical and Immune Features of Hospitalized Pediatric Patients With Coronavirus Disease 2019 (COVID-19) in Wuhan, China

Huan Wu, PhD; Hongmin Zhu, MD; Chunhui Yuan, PhD; Cong Yao, MD; Wei Luo, PhD; Xin Shen, MD; Jun Wang, MD; Jianbo Shao, PhD; Yun Xiang, PhD

Abstract

IMPORTANCE The epidemiologic and clinical characteristics of pediatric patients with coronavirus disease 2019 (COVID-19) have been reported, but information on immune features associated with disease severity is scarce.

OBJECTIVE To delineate and compare the immunologic features of mild and moderate COVID-19 in pediatric patients.

DESIGN, SETTING, AND PARTICIPANTS This single-center case series included 157 pediatric patients admitted to Wuhan Children's Hospital with laboratory-confirmed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Data were collected from January 25 to April 18, 2020.

EXPOSURES Documented SARS-CoV-2 infection.

MAIN OUTCOMES AND MEASURES Clinical and immunologic characteristics were collected and analyzed. Outcomes were observed until April 18, 2020.

RESULTS Of the 157 pediatric patients with COVID-19, 60 (38.2%) had mild clinical type with pneumonia, 88 (56.1%) had moderate cases, 6 (3.8%) had severe cases, and 3 (1.9%) were critically ill. The 148 children with mild or moderate disease had a median (interquartile range [IQR]) age of 84 (18-123) months, and 88 (59.5%) were girls. The most common laboratory abnormalities were increased levels of alanine aminotransferase (ALT) (median [IQR], 16.0 [12.0-26.0] U/L), aspartate aminotransferase (AST) (median [IQR], 30.0 [23.0-41.8] U/L), creatine kinase MB (CK-MB) activity (median [IQR], 24.0 [18.0-34.0] U/L), and lactate dehydrogenase (LDH) (median [IQR], 243.0 [203.0-297.0] U/L), which are associated with liver and myocardial injury. Compared with mild cases, levels of inflammatory cytokines including interleukin 6, tumor necrosis factor α, and interferon γ were unchanged, whereas the level of immune suppressive interleukin 10 was markedly increased in moderate cases compared with mild cases (median [IQR], 3.96 [3.34-5.29] pg/mL vs 3.58 [3.10-4.36] pg/mL; $P = .048$). There was no statistically significant difference in absolute number of lymphocytes (including T cells and B cells) between mild and moderate cases, but moderate cases were associated with a decrease in neutrophil levels compared with mild cases (median [IQR], 2310/μL [1680/μL-3510/μL] vs 3120/μL [2040/μL-4170/μL]; $P = .01$). Immunoglobin G and the neutrophil to lymphocyte ratio were negatively associated with biochemical indices related to liver and myocardial injury (immunoglobulin G, ALT: r, −0.3579; AST: r, −0.5280; CK-MB activity: r, −0.4786; LDH: r, −0.4984; and neutrophil to lymphocyte ratio, ALT: r, −0.1893; AST: r, −0.3912; CK-MB activity: r, −0.3428; LDH: r, −0.3234), while counts of lymphocytes, $CD4^+$ T cells, and interleukin 10 showed positive associations (lymphocytes, ALT: r, 0.2055; AST: r, 0.3615; CK-MB activity: r, 0.338; LDH: r, 0.3309; $CD4^+$ T cells, AST: r, 0.4701; CK-MB activity: r, 0.4151; LDH: r, 0.4418; interleukin 10, ALT: r, 0.2595; AST: r, 0.3386; CK-MB activity: r, 0.3948; LDH: r, 0.3794).

(continued)

Key Points

Question What are the immunologic features of pediatric patients with pneumonia caused by coronavirus disease 2019 (COVID-19)?

Findings In this single-center case series involving 157 pediatric patients with COVID-19, systemic inflammation rarely occurred. Patients with moderate disease had higher interleukin 10 levels and lower neutrophil levels than patients with mild disease.

Meaning The results of this study suggest that dysregulation of immune response may be involved in the pathologic process of COVID-19; gaining a deeper understanding of the role of neutrophils, $CD4^+$ T cells, and B cells in the pathogenesis of severe acute respiratory syndrome coronavirus 2 infection could be important for the clinical management of COVID-19.

Author affiliations and article information are listed at the end of this article.

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MZT 02.07.20

Early report

Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

A J Wakefield, S H Murch, A Anthony, J Linnell, D M Casson, M Malik, M Berelowitz, A P Dhillon, M A Thomson, P Harvey, A Valentine, S E Davies, J A Walker-Smith

Summary

Background We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder.

Methods 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal development followed by loss of acquired skills, including language, together with diarrhoea and abdominal pain. Children underwent gastroenterological, neurological, and developmental assessment and review of developmental records. Ileocolonoscopy and biopsy sampling, magnetic-resonance imaging (MRI), electroencephalography (EEG), and lumbar puncture were done under sedation. Barium follow-through radiography was done where possible. Biochemical, haematological, and immunological profiles were examined.

Findings Onset of behavioural symptoms was associ[illegible] by the parents, with measles, mumps, and rub[illegible] vaccination in eight of the 12 children, with measl[illegible] infection in one child, and otitis media in a[illegible]. All 1[illegible] children had intestinal abnormalities [illegible]angi[illegible] from lymphoid nodular hyperplasia to a[illegible]oid ul[illegible]ration. Histology showed patchy chronic inflam[illegible]tion i[illegible] in 11 children and reactive ileal lymphoi[illegible]perplasia in seven, but no granulomas. Be[illegible]vioural diso[illegible]s included autism (nine), disintegrativ[illegible]sy[illegible]sis (one), a[illegible] possible postviral or vaccinal encephalitis [illegible]). There were no focal neurological ab[illegible]malities and [illegible] and EEG tests were normal. Abno[illegible]al laboratory results [illegible]ere significantly raised urinary [illegible]thylma[illegible]c acid compared with age-matched contro[illegible]=[illegible]03), low haemoglobin in four children, a[illegible] low s[illegible]m IgA in [illegible]r children.

Inter[illegible]tation [illegible]e ident[illegible] associated gastrointestinal di[illegible]se and [illegible]evelopmental regression in a group of previ[illegible]ly [illegible]mal chi[illegible]n, which was generally associated in time [illegible] possible environmental triggers.

Lancet 1998; **351:** 637–41
See Commentary page

Inflammatory Bowel Disease Study Group, University Departments of Medicine and Histopathology (A J Wakefield FRCS, A Anthony MB, J Linnell PhD, A P Dhillon MRCPath, S E Davies MRCPath) **and the University Departments of Paediatric Gastroenterology** (S H Murch MB, D M Casson MRCP, M Malik MRCP, M A Thomson FRCP, J A Walker-Smith FRCP,), **Child and Adolescent Psychiatry** (M Berelowitz FRCPsych), **Neurology** (P Harvey FRCP), **and Radiology** (A Valentine FRCR), **Royal Free Hospital and School of Medicine, London NW3 2QG, UK**

Correspondence to: Dr A J Wakefield

Introduction

We saw several children who, after a p[illegible]d of apparent normality, lost acquired skills, includ[illegible] com[illegible]nication. They all had gastrointestinal [illegible]mptoms, [illegible]luding abdominal pain, diarrhoea, and [illegible]ating and, i[illegible] some cases, food intolerance. We [illegible]cribe[illegible] clinical fi[illegible]ings, and gastrointestinal featur[illegible] of these ch[illegible]en.

Patients and meth[illegible]s

12 children, con[illegible]tively [illegible]red to [illegible] department of paediatric gastr[illegible]terology [illegible] a hi[illegible]y of a pervasive developmental [illegible]der with loss [illegible]ed skills and intestinal symptoms [illegible]arrh[illegible] abdomina[illegible]in, bloating and food intolerance), were inve[illegible]ated. All children were admitted to the ward f[illegible] week, accom[illegible]d by their parents.

Clinical investigations

[illegible] took histor[illegible] including details of immunisations and e[illegible]sure to infec[illegible]us diseases, and assessed the children. In 11 ca[illegible] the histor[illegible]as obtained by the senior clinician (JW-S). Neu[illegible] psychiatric assessments were done by consultant staff (PH, MB) with HMS-4 criteria.[1] Developmental [illegible] included a review of prospective developmental records from parents, health visitors, and general practitioners. Four children did not undergo psychiatric assessment in hospital; all had been assessed professionally elsewhere, so these assessments were used as the basis for their behavioural diagnosis.

After bowel preparation, ileocolonoscopy was performed by SHM or MAT under sedation with midazolam and pethidine. Paired frozen and formalin-fixed mucosal biopsy samples were taken from the terminal ileum; ascending, transverse, descending, and sigmoid colons, and from the rectum. The procedure was recorded by video or still images, and were compared with images of the previous seven consecutive paediatric colonoscopies (four normal colonoscopies and three on children with ulcerative colitis), in which the physician reported normal appearances in the terminal ileum. Barium follow-through radiography was possible in some cases.

Also under sedation, cerebral magnetic-resonance imaging (MRI), electroencephalography (EEG) including visual, brain stem auditory, and sensory evoked potentials (where compliance made these possible), and lumbar puncture were done.

Laboratory investigations

Thyroid function, serum long-chain fatty acids, and cerebrospinal-fluid lactate were measured to exclude known causes of childhood neurodegenerative disease. Urinary methylmalonic acid was measured in random urine samples from eight of the 12 children and 14 age-matched and sex-matched normal controls, by a modification of a technique described previously.[2] Chromatograms were scanned digitally on computer, to analyse the methylmalonic-acid zones from cases and controls. Urinary methylmalonic-acid concentrations in patients and controls were compared by a two-sample *t* test. Urinary creatinine was estimated by routine spectrophotometric assay.

Children were screened for antiendomyseal antibodies and boys were screened for fragile-X if this had not been done

RETRACTED

Annals of Internal Medicine ORIGINAL RESEARCH

Measles, Mumps, Rubella Vaccination and Autism

A Nationwide Cohort Study

Anders Hviid, DrMedSci; Jørgen Vinsløv Hansen, PhD; Morten Frisch, DrMedSci; and Mads Melbye, DrMedSci

Background: The hypothesized link between the measles, mumps, rubella (MMR) vaccine and autism continues to cause concern and challenge vaccine uptake.

Objective: To evaluate whether the MMR vaccine increases the risk for autism in children, subgroups of children, or time periods after vaccination.

Design: Nationwide cohort study.

Setting: Denmark.

Participants: 657 461 children born in Denmark from 1999 through 31 December 2010, with follow-up from 1 year of age and through 31 August 2013.

Measurements: Danish population registries were used to link information on MMR vaccination, autism diagnoses, other childhood vaccines, sibling history of autism, and autism risk factors to children in the cohort. Survival analysis of the time to autism diagnosis with Cox proportional hazards regression was used to estimate hazard ratios of autism according to MMR vaccination status, with adjustment for age, birth year, sex, other childhood vaccines, sibling history of autism, and autism risk factors (based on a disease risk score).

Results: During 5 025 754 person-years of follow-up, 6517 children were diagnosed with autism (incidence rate, 129.7 per 100 000 person-years). Comparing MMR-vaccinated with MMR-unvaccinated children yielded a fully adjusted autism hazard ratio of 0.93 (95% CI, 0.85 to 1.02). Similarly, no increased risk for autism after MMR vaccination was consistently observed in subgroups of children defined according to sibling history of autism, autism risk factors (based on a disease risk score) or other childhood vaccinations, or during specified time periods after vaccination.

Limitation: No individual medical charts were reviewed.

Conclusion: The study strongly supports that MMR vaccination does not increase the risk for autism, does not trigger autism in susceptible children, and is not associated with clustering of autism cases after vaccination. It adds to previous studies through significant additional statistical power and by addressing hypotheses of susceptible subgroups and clustering of cases.

Primary Funding Source: Novo Nordisk Foundation and Danish Ministry of Health.

Ann Intern Med. doi:10.7326/M18-2101 **Annals.org**
For author affiliations, see end of text.
This article was published at Annals.org on 5 March 2019.

The hypothesized link between the measles, mumps, rubella (MMR) vaccine and autism continues to cause concern and challenge vaccine acceptance almost 2 decades after the controversial and later retracted *Lancet* paper from 1998 (1), even though observational studies have not been able to identify an increased risk for autism after MMR vaccination. In a 2014 meta-analysis, 10 observational studies on childhood vaccines were identified: 5 cohort studies and 5 case-control studies (2). Of these, 2 cohort studies and 4 case-control studies specifically addressed MMR and autism, all reporting no association. This is consistent with more recent studies of note (3, 4).

We previously addressed this issue in a nationwide cohort study of 537 303 Danish children with 738 cases of autism spectrum disorders (5). In our cohort, MMR vaccination was not associated with autistic disorder (rate ratio, 0.92 [95% CI, 0.68 to 1.24]) or other autism spectrum disorders (rate ratio, 0.83 [CI, 0.65 to 1.07]).

In this study, we aimed to evaluate the association again in a more recent and nonoverlapping cohort of Danish children that has greater statistical power owing to more children, more cases, and longer follow-up. A criticism of our and other previous observational studies has been that these did not address the concern that MMR vaccination could trigger autism in specific groups of presumably susceptible children, in contrast to all children (6); the current study addresses this concern in detail. We evaluate the risk for autism after MMR vaccination in subgroups of children defined according to environmental and familial autism risk factors. Another criticism has been that MMR is associated with a regressive form of autism, leading to a clustering of cases with onset shortly after MMR vaccination (7). We evaluate the risk for autism after MMR vaccination in specific periods in detail.

METHODS

Ethical approval is not needed for register-based research in Denmark. The Danish Data Protection Agency approved the study.

Cohort

We conducted a nationwide cohort study of all children born in Denmark of Danish-born mothers from 1 January 1999 through 31 December 2010. We sourced the study cohort from the Danish Civil Registration System, which assigns a unique personal identification number to all people living in Denmark and keeps track of basic demographic information for each individual (8). This unique identifier is used in all other national registries and allows for individual-level linkage of health-related information, including vaccinations and autism diagnoses.

See also:
Editorial comment 1
Summary for Patients 2
Web-Only
Supplement

MZT 02.07.20

Cuadrado-Lavín *et al. Trials* (2020) 21:472
https://doi.org/10.1186/s13063-020-04400-4

Trials

LETTER Open Access

Controlled, double-blind, randomized trial to assess the efficacy and safety of hydroxychloroquine chemoprophylaxis in SARS CoV2 infection in healthcare personnel in the hospital setting: A structured summary of a study protocol for a randomised controlled trial

Antonio Cuadrado-Lavín[1,2], José Manuel Olmos[2,3], José Manuel Cifrian[2,4], Teresa Gimenez[2,5], Marco Antonio Gandarillas[2,6], Mar García-Saiz[2,7], Maria Henar Rebollo[2,8], Victor Martínez-Taboada[2,9], Marcos López-Hoyos[2,10], María Carmen Fariñas[2,11] and Javier Crespo[1,2*]

Abstract

Background: SARS-CoV-2 infection presents a high transmission in the group of health professionals in Spain (12-15% infected). Currently there is no accepted chemoprophylaxis but hydroxychloroquine (HDQ) is known to inhibit the coronavirus *in vitro*. Our hypothesis is that oral administration of hydroxychloroquine to healthcare professionals can reduce the incidence and prevalence of infection as well as its severity in this group.

Methods: Design: Prospective, single center, double blind, randomised, controlled trial (RCT). Participants: Adult health-care professionals (18-65 years) working in areas of high exposure and high risk of transmission of SARS-COV-2 (COVID areas, Intensive Care Unit –ICUs-, Emergency, Anesthesia and all those performing aerosol-generating procedures) will be included. Exclusion criteria include previous infection with SARS CoV2 (positive SARS-CoV-2 PCR or IgG serology), pregnancy or lactation, any contraindication to hydroxychloroquine or evidence of unstable or clinically significant systemic disease.

(Continued on next page)

Epidemiologia Clínica Homeopática: síntese dos princípios gerais e tipos de estudos epidemiológicos em homeopatia

Qualidade metodológica dos estudos epidemiológicos em homeopatia

Estudos epidemiológicos que respeitem a episteme homeopática

Aplicação dos princípios da epidemiologia clínica

Aplicação dos princípios da clínica homeopática

Aplicação da Epidemiologia Clínica ao Ensaio Controlado Randomizado Homeopático (ECRH)

- Premissas epidemiológicas para incrementar a qualidade metodológica do ECRH:
  - amostra significativa de participantes (NNT);
  - randomização corretamente executada;
  - método duplo-cego corretamente executado;
  - sintomas homeopáticos corretamente descritos;
  - conduta medicamentosa corretamente descrita;
  - resultados corretamente descritos;
  - análise estatística corretamente efetuada e descrita.

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© 2010 The Faculty of Homeopathy
doi:10.1016/j.homp.2010.02.001, available online at http://www.sciencedirect.com

ORIGINAL PAPER

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Marcus Z Teixeira*, Cristina H F F Guedes, Patrícia V Barreto and Mílton A Martins

Department of Internal Medicine, School of Medicine, Universidade de Sao Paulo, Sao Paulo, Brazil

Background: **Like other forms of medicine, including Complementary and Alternative Medicine (CAM), homeopathy elicits expectations in patients. The physician–patient relationship, personal and comprehensive treatment and lack of adverse effects are elements in creating positive expectations. Other elements may be associated with negative expectations.**
Methods: **We conducted a systematic literature review on placebo and nocebo effects in acupuncture and homeopathy using Medline.**
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Conclusions: **Directions for future research on non-specific therapeutic effects of homeopathy to improve clinical practice and clinical research are discussed.** *Homeopathy* (2010) **99**, 119–129.

Keywords: Placebo; Nocebo; Specific effects; Non-specific effects; Expectation; Conditioning; Imaging; qEEG; Homeopathy; Acupuncture

Adaptação do ECR à Episteme Homeopática (Ensaio Controlado Randomizado Homeopático)

- Incorporação das premissas homeopáticas ao ECR (respeito ao paradigma homeopático)⇨ Ensaio Controlado Randomizado Homeopático (ECRH):
  - individualização do medicamento homeopático;
  - critérios na escolha do medicamento (repertorização e hierarquização dos sinais e sintomas);
  - individualização das doses e das potências homeopáticas;
  - tempo de consulta - duração do estudo;
  - outros eventos adversos (agr., exoneração, RSA e SN);
  - avaliação quali-quantitativa dos desfechos.

Mathie *et al. Systematic Reviews* 2014, 3:142
http://www.systematicreviewsjournal.com/content/3/1/142

SYSTEMATIC REVIEWS

RESEARCH Open Access

Randomised placebo-controlled trials of individualised homeopathic treatment: systematic review and meta-analysis

Robert T Mathie[1*], Suzanne M Lloyd[2], Lynn A Legg[3], Jürgen Clausen[4], Sian Moss[5], Jonathan RT Davidson[6] and Ian Ford[2]

Abstract

Background: A rigorous and focused systematic review and meta-analysis of randomised controlled trials (RCTs) of individualised homeopathic treatment has not previously been undertaken. We tested the hypothesis that the outcome of an individualised homeopathic treatment approach using homeopathic medicines is distinguishable from that of placebos.

Methods: The review's methods, including literature search strategy, data extraction, assessment of risk of bias and statistical analysis, were strictly protocol-based. Judgment in seven assessment domains enabled a trial's risk of bias to be designated as low, unclear or high. A trial was judged to comprise 'reliable evidence' if its risk of bias was low or was unclear in one specified domain. 'Effect size' was reported as odds ratio (OR), with arithmetic transformation for continuous data carried out as required; OR > 1 signified an effect favouring homeopathy.

Results: Thirty-two eligible RCTs studied 24 different medical conditions in total. Twelve trials were classed 'uncertain risk of bias', three of which displayed relatively minor uncertainty and were designated reliable evidence; 20 trials were classed 'high risk of bias'. Twenty-two trials had extractable data and were subjected to meta-analysis; OR = 1.53 (95% confidence interval (CI) 1.22 to 1.91). For the three trials with reliable evidence, sensitivity analysis revealed OR = 1.98 (95% CI 1.16 to 3.38).

Conclusions: Medicines prescribed in individualised homeopathy may have small, specific treatment effects. Findings are consistent with sub-group data available in a previous 'global' systematic review. The low or unclear overall quality of the evidence prompts caution in interpreting the findings. New high-quality RCT research is necessary to enable more decisive interpretation.

Keywords: Individualised homeopathy, Meta-analysis, Randomised controlled trials, Systematic review

Background

The nature of the research evidence in homeopathy is a matter of ongoing scientific debate. Homeopathy's advocates tend to deny the worth of randomised controlled trials (RCTs) [1] or over-interpret their findings, whilst its critics dispute the therapy's scientific rationale and the existence of any positive findings in the research literature [2]. There is a need to temper these divergent opinions by considering the existing RCT evidence from an objective, rigorous and transparent assessment of the research, reflecting its particular nature and intrinsic methodological quality.

Five systematic reviews have examined the RCT research literature on homeopathy as a whole, including the broad spectrum of medical conditions that have been researched and by all forms of homeopathy: four of these 'global' systematic reviews reached the conclusion that, with important caveats [3], the homeopathic intervention probably differs from placebo [4-7]. By contrast, the most recent global systematic review, by Shang et al., concluded there was "weak evidence for a specific effect of homeopathic remedies…compatible with the notion

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Mathie *et al. Systematic Reviews* (2017) 6:63
DOI 10.1186/s13643-017-0445-3

Systematic Reviews

RESEARCH Open Access

CrossMark

Randomised, double-blind, placebo-controlled trials of non-individualised homeopathic treatment: systematic review and meta-analysis

Robert T. Mathie[1*], Nitish Ramparsad[2], Lynn A. Legg[3], Jürgen Clausen[4], Sian Moss[1], Jonathan R. T. Davidson[5], Claudia-Martina Messow[2] and Alex McConnachie[2]

Abstract

Background: A rigorous systematic review and meta-analysis focused on randomised controlled trials (RCTs) of non-individualised homeopathic treatment has not previously been reported. We tested the null hypothesis that the main outcome of treatment using a non-individualised (standardised) homeopathic medicine is indistinguishable from that of placebo. An additional aim was to quantify any condition-specific effects of non-individualised homeopathic treatment.

Methods: Literature search strategy, data extraction and statistical analysis all followed the methods described in a pre-published protocol. A trial comprised 'reliable evidence' if its risk of bias was low or it was unclear in one specified domain of assessment. 'Effect size' was reported as standardised mean difference (SMD), with arithmetic transformation for dichotomous data carried out as required; a negative SMD indicated an effect favouring homeopathy.

Results: Forty-eight different clinical conditions were represented in 75 eligible RCTs. Forty-nine trials were classed as 'high risk of bias' and 23 as 'uncertain risk of bias'; the remaining three, clinically heterogeneous, trials displayed sufficiently low risk of bias to be designated reliable evidence. Fifty-four trials had extractable data: pooled SMD was −0.33 (95% confidence interval (CI) −0.44, −0.21), which was attenuated to −0.16 (95% CI −0.31, −0.02) after adjustment for publication bias. The three trials with reliable evidence yielded a non-significant pooled SMD: −0.18 (95% CI −0.46, 0.09). There was no single clinical condition for which meta-analysis included reliable evidence.

Conclusions: The quality of the body of evidence is low. A meta-analysis of all extractable data leads to rejection of our null hypothesis, but analysis of a small sub-group of reliable evidence does not support that rejection. Reliable evidence is lacking in condition-specific meta-analyses, precluding relevant conclusions. Better designed and more rigorous RCTs are needed in order to develop an evidence base that can decisively provide reliable effect estimates of non-individualised homeopathic treatment.

Keywords: Non-individualised homeopathy, Meta-analysis, Randomised controlled trials, Sensitivity analysis, Systematic review

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MZT 02.07.20

EXPERIMENTAL AND THERAPEUTIC MEDICINE 18: 943-948, 2019

Case series of an alternative therapy for generalised lichen planus: Four case studies

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Received November 11, 2018; Accepted April 1, 2019

DOI: 10.3892/etm.2019.7677

Abstract. Lichen planus (LP) is an idiopathic, cell-mediated immune disorder, accompanied by itching. Spontaneous remission occurs. Topical and systemic therapies are utilised. Four cases of generalized LP with and without mucosal involvement treated homeopathically are presented. Case 1: A 48-year-old female presented with a 7-month history of generalized itchy rash, which had been diagnosed as LP, treated unsuccessfully with topical steroids and removal of dental fillings. Examination revealed violaceous papules on upper and lower limbs, oral mucosal lesions and an irregular, erythematous, blanching, macular rash on the chest. She received homeopathic *Ignatia amara* at medication dilution factor (MK) potency, weekly dose and went into remission at 3 months. Patient remains in remission. Case 2: A 65-year-old female presented with a 27-year history of generalized, LP, which had been unresponsive to topical steroids. Examination showed generalized, violaceous papules, with no mucosal involvement. She received homeopathic *Aurum metallicum*, MK potency, weekly, and went into remission. She relapsed at 8 months after onset of therapy, following a very stressful incident, but gained remission again with *Aurum metallicum* after 1 month of therapy. She remains in remission. Case 3: A 38-year-old male presented with a 21-year history of generalized LP. Medical history was significant for hepatitis B and asthma. Topical steroid therapy was only partially successful. Examination revealed generalized, violaceous papules, with oral and genital involvement. He received homeopathic *Lycopodium* at MK potency, weekly, and remitted by 2 months. He remains in remission. Case 4: A 41-year-old male presented with a 12-year history of generalized hypertrophic LP, which had responded partially to topical steroids and ultraviolet A therapy. Medical history was significant for reduced sense of smell. Examination revealed generalized, violaceous, hypertrophic papules and nodules. He received homeopathic *Carcinosinum* at MK potency and remitted at 6-months. In its long-standing, generalized form, with mucosal involvement, LP may respond to individualized homeopathy. More research may clarify homeopathy's place in LP therapy.

Introduction

Lichen planus (LP) is an idiopathic, cell-mediated immune disorder, accompanied by itching, mucosal lesions and characteristic skin lesions in most cases. The clinical manifestations of LP have been described as the '6 Ps' of LP, namely: Pruritic, purple, polygonal, planar, papules and plaques, encompassing the main manifestations of this disorder (1). Different subtypes of LP are more prevalent in certain populations and sub groups, for example, actinic, hypertrophic, pigmentosus and childhood variants are more common in African American and darker-skinned populations. Of note, childhood LP has a greater male prevalence, which is unusual for an autoimmune disorder (1).

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PLOS | ONE

Comparative Effectiveness of Homoeopathic vs. Conventional Therapy in Usual Care of Atopic Eczema in Children: Long-Term Medical and Economic Outcomes

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Abstract

Background: One in five children visiting a homeopathic physician suffers from atopic eczema.

Objectives: We aimed to examine the long-term effectiveness, safety and costs of homoeopathic vs. conventional treatment in usual medical care of children with atopic eczema.

Methods: In this prospective multi-centre comparative observational non-randomized rater-blinded study, 135 children (48 homoeopathy, 87 conventional) with mild to moderate atopic eczema were included by their respective physicians. Depending on the specialisation of the physician, the primary treatment was either standard conventional treatment or individualized homeopathy as delivered in routine medical care. The main outcome was the SCORAD (SCORing Atopic Dermatitis) at 36 months by a blinded rater. Further outcomes included quality of life, conventional medicine consumption, safety and disease related costs at six, 12 and 36 months after baseline. A multilevel ANCOVA was used, with physician as random effect and the following fixed effects: age, gender, baseline value, severity score, social class and parents' expectation.

Results: The adjusted mean SCORAD showed no significant differences between the groups at 36 months (13.7 95% CI [7.9–19.5] vs. 14.9 [10.4–19.4], $p = 0.741$). The SCORAD response rates at 36 months were similar in both groups (33% response: homoeopathic 63.9% vs. conventional 64.5%, $p = 0.94$; 50% response: 52.0% vs. 52.3%, $p = 0.974$). Total costs were higher in the homoeopathic versus the conventional group (months 31–36 200.54 Euro [132.33–268.76] vs. 68.86 Euro [9.13–128.58], $p = 0.005$).

Conclusions: Taking patient preferences into account, while being unable to rule out residual confounding, in this long-term observational study, the effects of homoeopathic treatment were not superior to conventional treatment for children with mild to moderate atopic eczema, but involved higher costs.

Citation: Roll S, Reinhold T, Pach D, Brinkhaus B, Icke K, et al. (2013) Comparative Effectiveness of Homoeopathic vs. Conventional Therapy in Usual Care of Atopic Eczema in Children: Long-Term Medical and Economic Outcomes. PLoS ONE 8(1): e54973. doi:10.1371/journal.pone.0054973

European Journal of Obstetrics & Gynecology and Reproductive Biology 211 (2017) 48–55

Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Full length article

Potentized estrogen in homeopathic treatment of endometriosis-associated pelvic pain: A 24-week, randomized, double-blind, placebo-controlled study

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ARTICLE INFO

Article history:
Received 3 November 2016
Received in revised form 20 January 2017
Accepted 21 January 2017
Available online xxx

Keywords:
Homeopathy
Endometriosis
Pelvic pain
Homeopathic remedy
Rebound effect
Placebo
Randomized controlled trial (RCT)

ABSTRACT

Objective: To evaluate the efficacy and safety of potentized estrogen compared to placebo in homeopathic treatment of endometriosis-associated pelvic pain (EAPP).

Study design: The present was a 24-week, randomized, double-blind, placebo-controlled trial that included 50 women aged 18–45 years old with diagnosis of deeply infiltrating endometriosis based on magnetic resonance imaging or transvaginal ultrasound after bowel preparation, and score ≥ 5 on a visual analogue scale (VAS: range 0 to 10) for endometriosis-associated pelvic pain. Potentized estrogen (12cH, 18cH and 24cH) or placebo was administered twice daily per oral route. The primary outcome measure was change in the severity of EAPP global and partial scores (VAS) from baseline to week 24, determined as the difference in the mean score of five modalities of chronic pelvic pain (dysmenorrhea, deep dyspareunia, non-cyclic pelvic pain, cyclic bowel pain and/or cyclic urinary pain). The secondary outcome measures were mean score difference for quality of life assessed with SF-36 Health Survey Questionnaire, depression symptoms on Beck Depression Inventory (BDI), and anxiety symptoms on Beck Anxiety Inventory (BAI).

Results: The EAPP global score (VAS: range 0 to 50) decreased by 12.82 ($P < 0.001$) in the group treated with potentized estrogen from baseline to week 24. Group that used potentized estrogen also exhibited partial score (VAS: range 0 to 10) reduction in three EAPP modalities: dysmenorrhea (3.28; $P < 0.001$), non-cyclic pelvic pain (2.71; $P = 0.009$), and cyclic bowel pain (3.40; $P < 0.001$). Placebo group did not show any significant changes in EAPP global or partial scores. In addition, the potentized estrogen group showed significant improvement in three of eight SF-36 domains (bodily pain, vitality and mental health) and depression symptoms (BDI). Placebo group showed no significant improvement in this regard. These results demonstrate superiority of potentized estrogen over placebo. Few adverse events were associated with potentized estrogen.

Conclusions: Potentized estrogen (12cH, 18cH and 24cH) at a dose of 3 drops twice daily for 24 weeks was significantly more effective than placebo for reducing endometriosis-associated pelvic pain.

Trial registration: ClinicalTrials.gov Identifier: NCT02427386.

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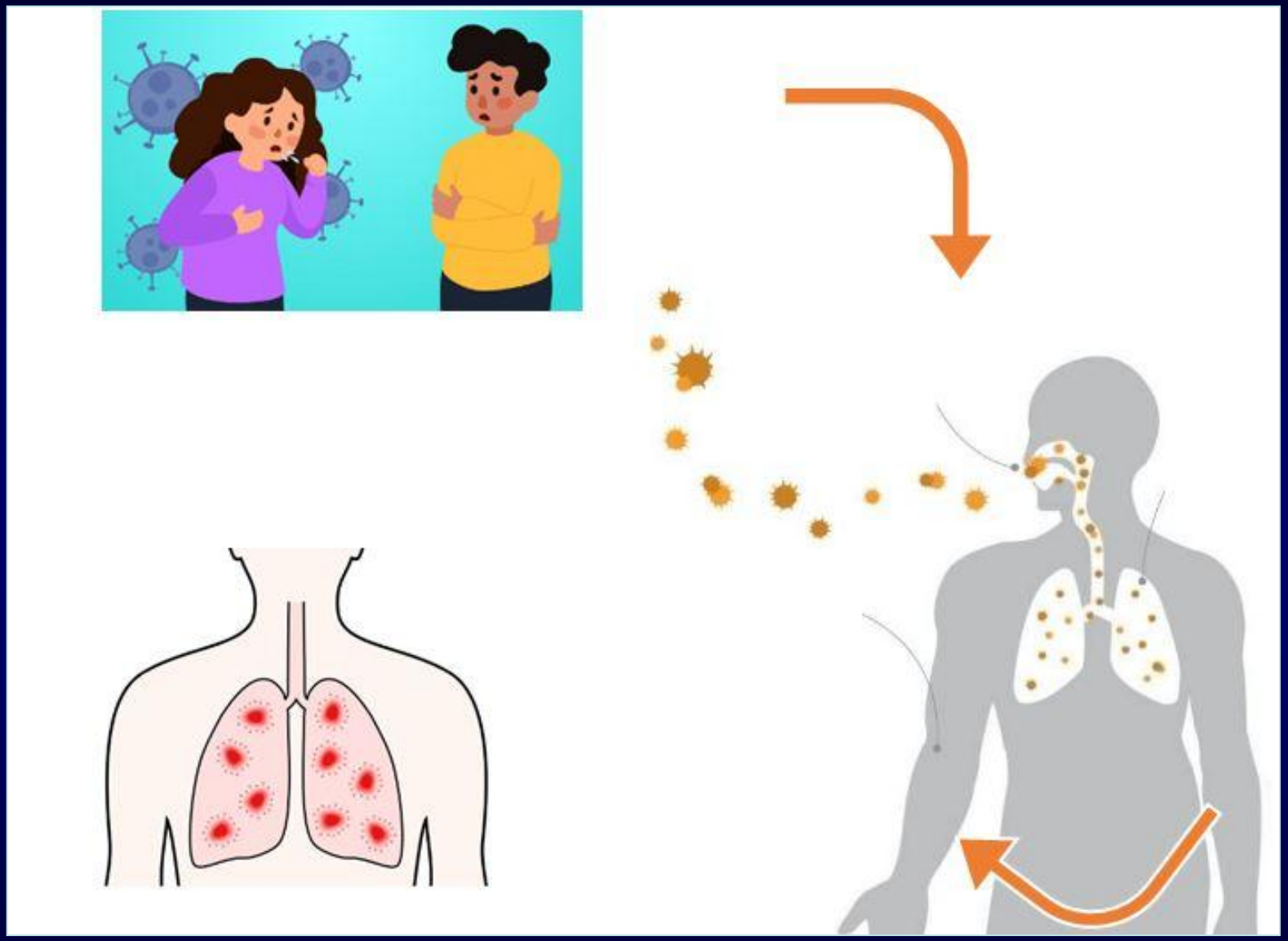
MZT 02.07.20

Epidemiologia Clínica em Epidemias: premissas para a elaboração de estudos epidemiológicos

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Uma doença transmissível é aquela causada pela transmissão de um agente patogênico (infeccioso) específico para um hospedeiro suscetível. Agentes infecciosos podem ser transmitidos para humanos de modo direto (outros humanos ou animais) ou indireto (vetores, veículos ou via aérea).
- Uma doença contagiosa é aquela que pode ser transmitida pelo contato direto entre os seres humanos, sem a necessidade de um vetor ou veículo interveniente:
  - a varicela, o sarampo e a Covid-19 são transmissíveis e contagiosas;
  - a febre amarela, a malária e a dengue são transmissíveis, mas não contagiosas (necessitam de um 'vetor' para sua transmissão).



Covid-19: doença transmissível e contagiosa (contato direto).

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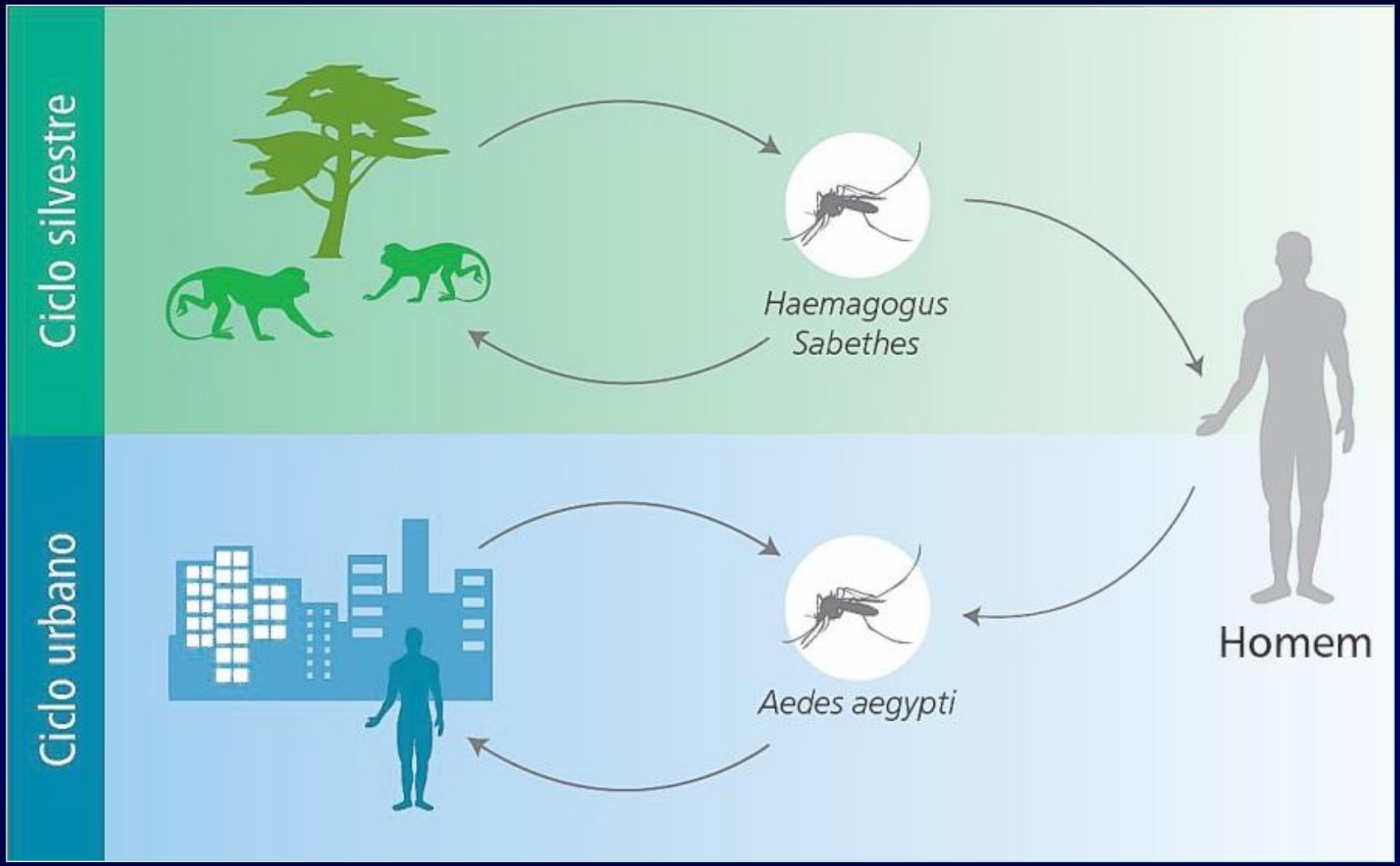


Febre amarela: doença transmissível e não contagiosa (vetor).

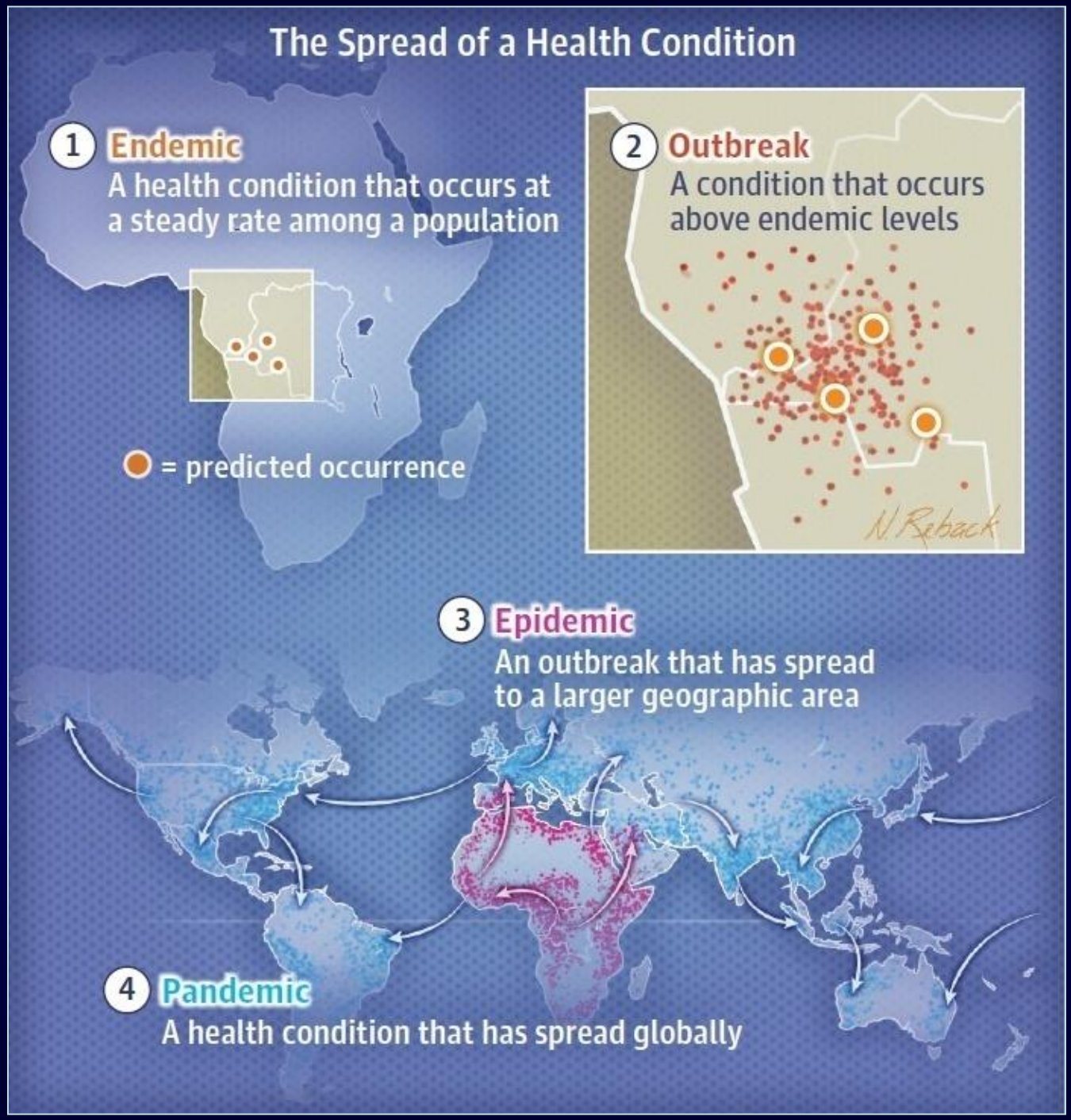
Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Etimologicamente, ‘epidemiologia’ significa ‘estudo das epidemias’, tendo se desenvolvido com o estudo de surtos de doenças transmissíveis e da interação entre agentes, vetores e reservatórios.
- Doenças emergentes sempre apresentaram uma grande e imprevisível carga (‘colapso’) sobre os sistemas de saúde, em todas as épocas e em todos os países.
- O uso de métodos epidemiológicos na investigação e controle das doenças transmissíveis ainda é um desafio para os profissionais de saúde, pois as investigações devem ser feitas de forma rápida e, geralmente, com recursos limitados.

Gripe Espanhola (1918)
'Colapso' nos Sistemas de Saúde

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- As doenças transmissíveis são chamadas de endêmicas quando apresentam um padrão de ocorrência relativamente estável, com elevada incidência ou prevalência.
- Doenças endêmicas como a malária e a dengue estão entre os principais problemas de saúde em países tropicais de baixa renda. Se ocorrerem mudanças nas condições do hospedeiro, do agente infeccioso ou do ambiente, uma doença endêmica poderá se tornar epidêmica, e vice-versa.
- No caso da malária e da dengue, onde o mosquito é o vetor, as áreas endêmicas ou epidêmicas são limitadas pelas condições climáticas (‘calor e umidade’ *vs.* ‘frio e seco’).


The Spread of a Health Condition
1 Endemic
A health condition that occurs at a steady rate among a population
= predicted occurrence
2 Outbreak
A condition that occurs above endemic levels
N Reback
3 Epidemic
An outbreak that has spread to a larger geographic area
4 Pandemic
A health condition that has spread globally

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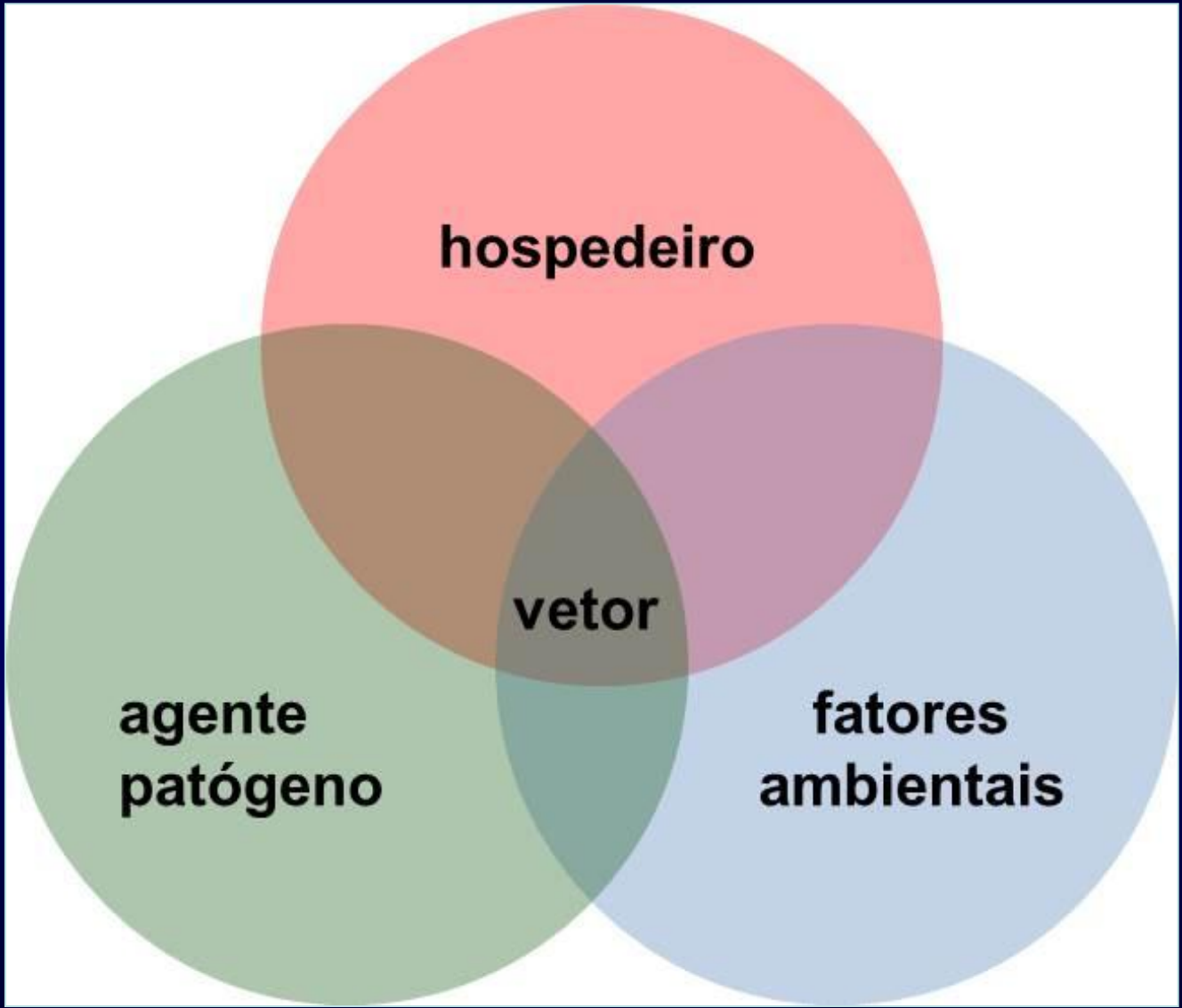
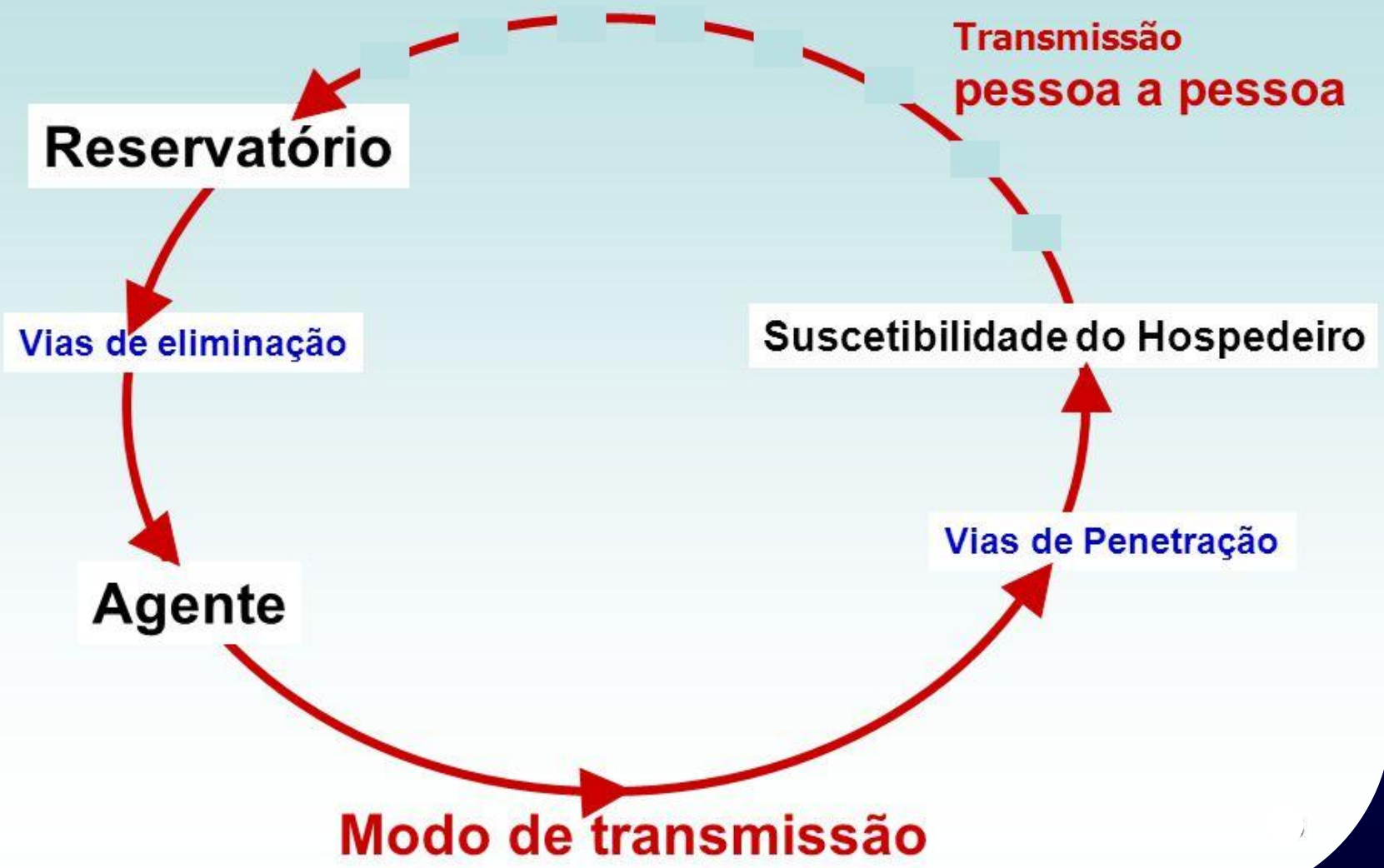
Epidemiologia das Doenças Transmissíveis ou Infecciosas

- A dinâmica de uma epidemia é determinada pelas características do agente infeccioso, pelo modo de transmissão e pela suscetibilidade (imunidade) dos hospedeiros.
- As doenças transmissíveis ocorrem como resultado de uma cadeia de infecção (tríade epidemiológica de causalidade), ou seja, da interação entre agente, hospedeiro e ambiente.
- A principal contribuição da epidemiologia nas doenças transmissíveis é esclarecer a cadeia de infecção ou transmissão, a fim de avaliar, desenvolver e implementar medidas de controle.

Tríade Epidemiológica de Causalidade das Doenças Transmissíveis



Cadeia de Transmissão



Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Em relação ao **agente infeccioso,** cada qual apresenta características específicas, importantes para determinar a natureza da infecção segundo diversos aspectos.
- Transmissibilidade ou Infectividade: capacidade do agente em se disseminar de indivíduo para indivíduo.
- Patogenicidade: capacidade do agente de produzir a doença, calculada pela razão entre o número de pessoas com a doença clínica e o número de pessoas expostas.
- Virulência: medida de gravidade da doença, podendo variar de muito baixa a muito alta; vírus de baixa virulência (atenuado) pode ser usado para imunização (vírus da pólio).

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Dose infectante: dose mínima do agente requerida para causar infecção em indivíduo suscetível.
- Reservatório: habitat natural do agente infeccioso, que pode incluir humanos, animais e fontes ambientais.
- Fonte de infecção: pessoa, animal, objeto ou substância de onde o hospedeiro adquire a doença.
  - o conhecimento tanto do reservatório quanto da fonte é necessário para o desenvolvimento de medidas de controle;
  - uma importante fonte de infecção pode ser o portador 'assintomático', ou seja, pessoa infectada que não mostra qualquer evidência de doença clínica (infecção subclínica);

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Fonte de infecção (continuação):
  - os portadores ‘assintomáticos’ desempenham importante papel na transmissão das doenças transmissíveis;
  - a duração do estado de portador (assintomáticos com infecção inaparente ou subclínica) varia dentre os diferentes agentes;
  - O estado de portador pode durar todo o período de infecção (‘crônico’) ou pode ser limitado a uma fase da doença (‘breve’);
  - Na hepatite B e na AIDS, os portadores (assintomáticos) têm importante papel na disseminação global dos vírus, em decorrência da transmissão sexual ocorrer durante longos períodos sem sintomas (‘estado de portador crônico’).

Características Específicas do SARS-Cov-2 (COVID-19)

Transmissibilidade (capacidade em se disseminar)	**Média:** 1/3 pessoas (sarampo: 1/20 pessoas).
Patogenicidade (capacidade de produzir doença)	**Baixa:** 80% de casos assintomáticos ou leves-moderados.
Virulência (gravidade da doença) (WHO-China, 2020)	**Baixa:** em torno de 80% dos casos sintomáticos apresenta doença leve-moderada; em torno de 13,8% apresenta pneumonia grave; em torno de 6,1% apresenta quadros críticos (falência respiratória e SFMO); taxa de mortalidade bruta em torno de 3,8%.
Dose infectante (dose mínima do vírus para causar infecção)	??? (varia com a suscetibilidade do hospedeiro)
Reservatório (habitat natural)	Animais silvestres ⇨ Humanos.
Fonte de infecção (doente e portador)	**Doente** (período sintomático/infeccioso; 10-20%): maior carga viral após 7 dias do surgimento dos sintomas.
	Portador (sadio; **assintomático;** com infecção inaparente ou subclínica): **responsável por 30-50% das infecções. Diagnosticado apenas por testes laboratoriais.**

nature medicine

LETTERS

https://doi.org/10.1038/s41591-020-0965-6

Check for updates

Clinical and immunological assessment of asymptomatic SARS-CoV-2 infections

Quan-Xin Long[1,8], Xiao-Jun Tang[2,8], Qiu-Lin Shi[2,8], Qin Li[3,8], Hai-Jun Deng[1,8], Jun Yuan[1], Jie-Li Hu[1], Wei Xu[2], Yong Zhang[2], Fa-Jin Lv[4], Kun Su[3], Fan Zhang[5], Jiang Gong[5], Bo Wu[6], Xia-Mao Liu[7], Jin-Jing Li[7], Jing-Fu Qiu[2]✉, Juan Chen[1]✉ and Ai-Long Huang[1]✉

The clinical features and immune responses of asymptomatic individuals infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) have not been well described. We studied 37 asymptomatic individuals in the Wanzhou District who were diagnosed with RT-PCR-confirmed SARS-CoV-2 infections but without any relevant clinical symptoms in the preceding 14 d and during hospitalization. Asymptomatic individuals were admitted to the government-designated Wanzhou People's Hospital for centralized isolation in accordance with policy[1]. The median duration of viral shedding in the asymptomatic group was 19 d (interquartile range (IQR), 15–26 d). The asymptomatic group had a significantly longer duration of viral shedding than the symptomatic group (log-rank $P = 0.028$). The virus-specific IgG levels in the asymptomatic group (median S/CO, 3.4; IQR, 1.6–10.7) were significantly lower ($P = 0.005$) relative to the symptomatic group (median S/CO, 20.5; IQR, 5.8–38.2) in the acute phase. Of asymptomatic individuals, 93.3% (28/30) and 81.1% (30/37) had reduction in IgG and neutralizing antibody levels, respectively, during the early convalescent phase, as compared to 96.8% (30/31) and 62.2% (23/37) of symptomatic patients. Forty percent of asymptomatic individuals became seronegative and 12.9% of the symptomatic group became negative for IgG in the early convalescent phase. In addition, asymptomatic individuals exhibited lower levels of 18 pro- and anti-inflammatory cytokines. These data suggest that asymptomatic individuals had a weaker immune response to SARS-CoV-2 infection. The reduction in IgG and neutralizing antibody levels in the early convalescent phase might have implications for immunity strategy and serological surveys.

understanding of the clinical features and immune responses of asymptomatic individuals with SARS-CoV-2 infection is limited. Here we describe the epidemiological and clinical characteristics, virus levels and immune responses in 37 asymptomatic individuals.

Results

Demographic characteristics. On February 6, 2020, the National Health Commission of China updated the COVID-19 Prevention and Control Plan (4th edition) for the management of close contacts, emphasizing identification and quarantine of asymptomatic individuals[1]. To identify asymptomatic individuals, the Wanzhou District Centers for Disease Control and Prevention (CDC) then conducted extensive RT–PCR screening for 2,088 close contacts under quarantine. Individuals with positive RT–PCR results then were screened by point prevalence surveys carried out by the local CDC and symptoms assessments reported by clinicians. Of these, 60 individuals claimed no symptoms in the preceding 14 d, according to local CDC records, and were transferred to a government-designated hospital for centralized isolation. On admission, 17 individuals were excluded for mild or atypical symptoms based on symptoms assessments reported by clinicians; six individuals who developed symptoms 4–17 d after admission were also excluded. Finally, 37 asymptomatic cases, defined as individuals with a positive nucleic acid test result but without any relevant clinical symptoms in the preceding 14 d and during hospitalization, were included in this study. A total of 178 patients with confirmed SARS-CoV-2 infections were identified in the Wanzhou District before April 10, 2020, as tracked by CDC surveillance systems. In this study, the proportion of patients with asymptomatic infections was 20.8% (37/178).

MZT 02.07.20

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Article

Targets of T Cell Responses to SARS-CoV-2 Coronavirus in Humans with COVID-19 Disease and Unexposed Individuals

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https://doi.org/10.1016/j.cell.2020.05.015

SUMMARY

Understanding adaptive immunity to SARS-CoV-2 is important for vaccine development, interpreting coronavirus disease 2019 (COVID-19) pathogenesis, and calibration of pandemic control measures. Using HLA class I and II predicted peptide "megapools," circulating SARS-CoV-2-specific $CD8^+$ and $CD4^+$ T cells were identified in ~70% and 100% of COVID-19 convalescent patients, respectively. $CD4^+$ T cell responses to spike, the main target of most vaccine efforts, were robust and correlated with the magnitude of the anti-SARS-CoV-2 IgG and IgA titers. The M, spike, and N proteins each accounted for 11%–27% of the total $CD4^+$ response, with additional responses commonly targeting nsp3, nsp4, ORF3a, and ORF8, among others. For $CD8^+$ T cells, spike and M were recognized, with at least eight SARS-CoV-2 ORFs targeted. Importantly, we detected SARS-CoV-2-reactive $CD4^+$ T cells in ~40%–60% of unexposed individuals, suggesting cross-reactive T cell recognition between circulating "common cold" coronaviruses and SARS-CoV-2.

Epidemiologia das Doenças Transmissíveis ou Infecciosas

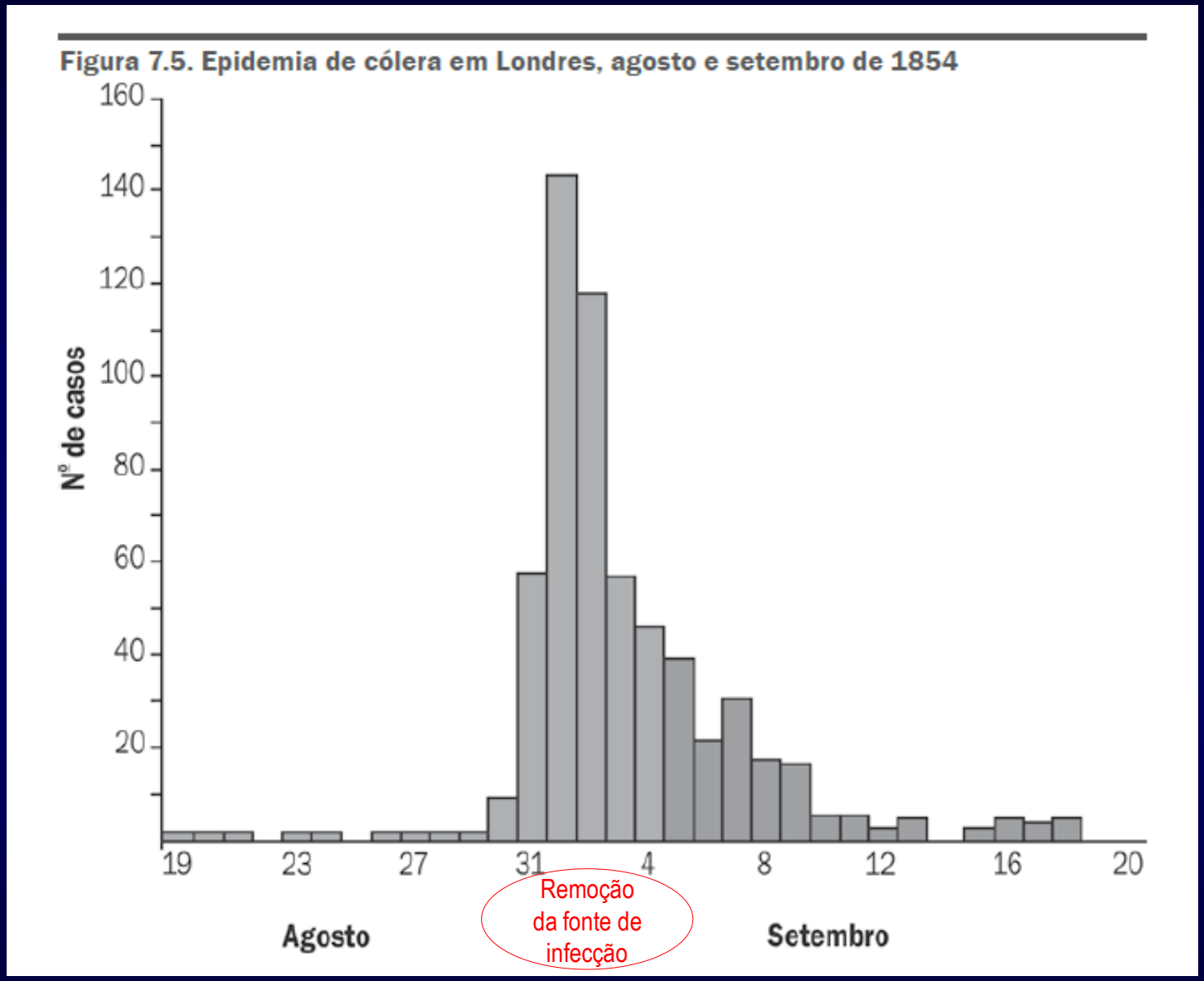
- Inúmeros agentes infecciosos interagem com o individuo, sendo que a infecção se instala (doença manifesta), apenas, com a entrada e a multiplicação do agente no hospedeiro.
- Os três principais grupos de agentes infecciosos ou patogênicos (vírus, bactérias e parasitas) apresentam modos de transmissão e formas de prevenção/controle distintos.
- Vírus e bactérias contam com o auxílio de vacinas que atuam tanto em nível individual, ao prevenir ou atenuar a doença em um indivíduo exposto ao agente, quanto em nível populacional, ao afetar a imunidade da população.

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- O segundo elo na cadeia de infecção é a **transmissão do agente infeccioso** para o ambiente ou para outra pessoa. A transmissão pode ser direta ou indireta.
- Na transmissão direta, o agente infeccioso é transferido de forma direta e imediata de um reservatório ou hospedeiro para uma porta de entrada de um outro hospedeiro.
- Também denominada como transmissão por contágio, ocorre pelo contato direto através do toque, beijo, relação sexual ou pela disseminação por gotículas de secreção (falar, tossir ou espirrar).

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Na transmissão indireta, o agente infeccioso é propagado através de veículos (materiais contaminados: objetos, alimentos, água, tecidos, etc.), vetores (inseto ou animal) ou via aérea (aerossóis microbianos, partículas ou gotículas).
- Em uma epidemia de transmissão indireta por materiais contaminados, todos os indivíduos suscetíveis são expostos a uma mesma fonte ou veículo de infecção. Isso resulta em aumento exponencial de casos, mas possibilita rápido controle.
- Este tipo de transmissão foi observado na epidemia de cólera, na qual a forma de controle efetiva foi possível rapidamente retirando-se o veículo de infecção (água com *Vibrio cholerae).*



Bonita R et al. Epidemiologia básica. 2.ed. São Paulo: Editora Santos; 2010.

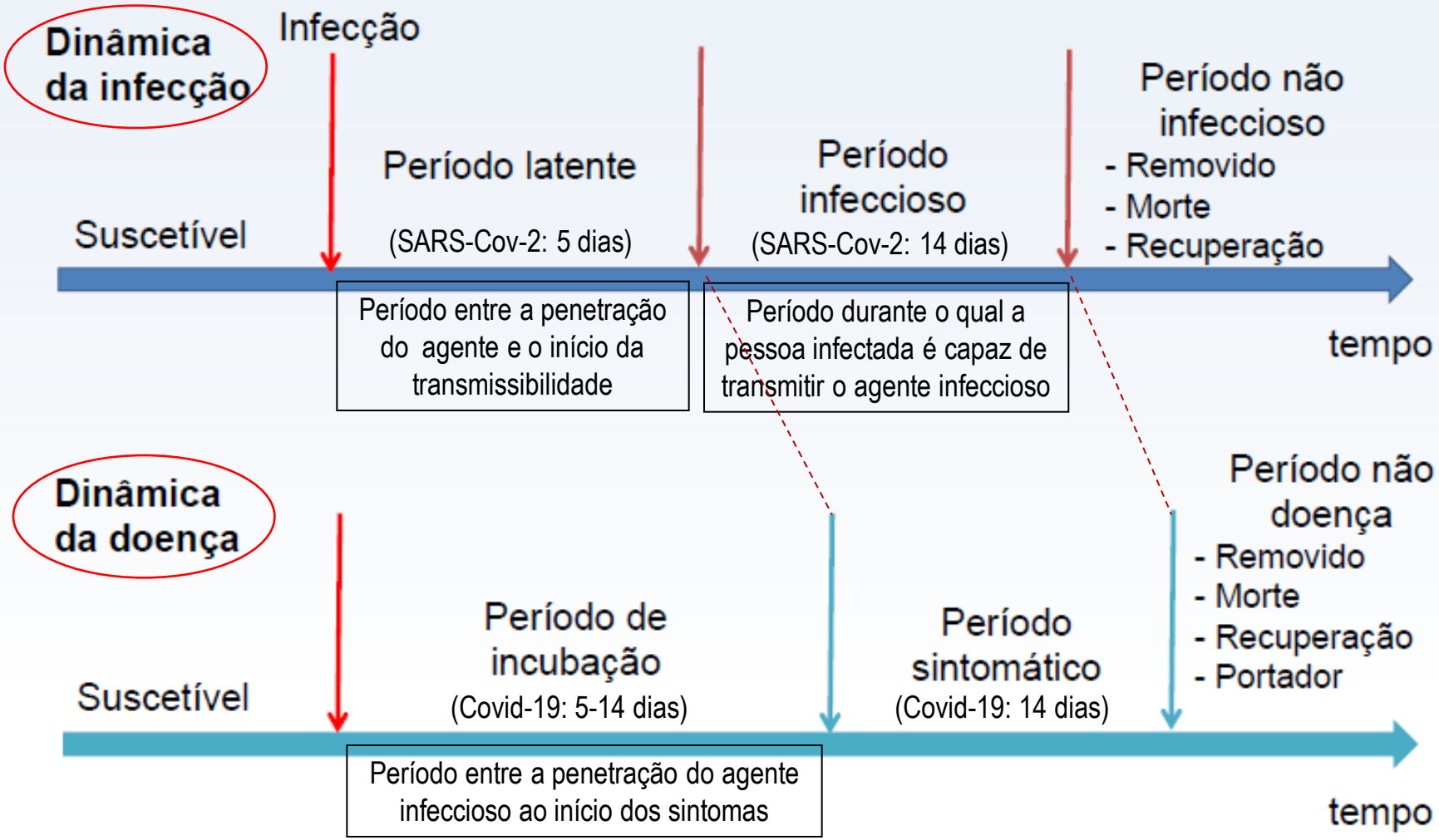
Epidemiologia das Doenças Transmissíveis ou Infecciosas

- O **hospedeiro** é o terceiro elo na cadeia de infecção e é definido como uma pessoa ou animal que proporciona um local adequado para que um agente infeccioso cresça e se multiplique em condições naturais.
- O ponto de entrada no hospedeiro varia com o agente e inclui pele, mucosa, trato respiratório e trato gastrointestinal.
- A reação do hospedeiro à infecção é bastante variável, desde a infecção subclínica ou inaparente (assintomáticos) até as formas clínicas severas, sendo determinada pela sua interação com o agente e o tipo de transmissão.

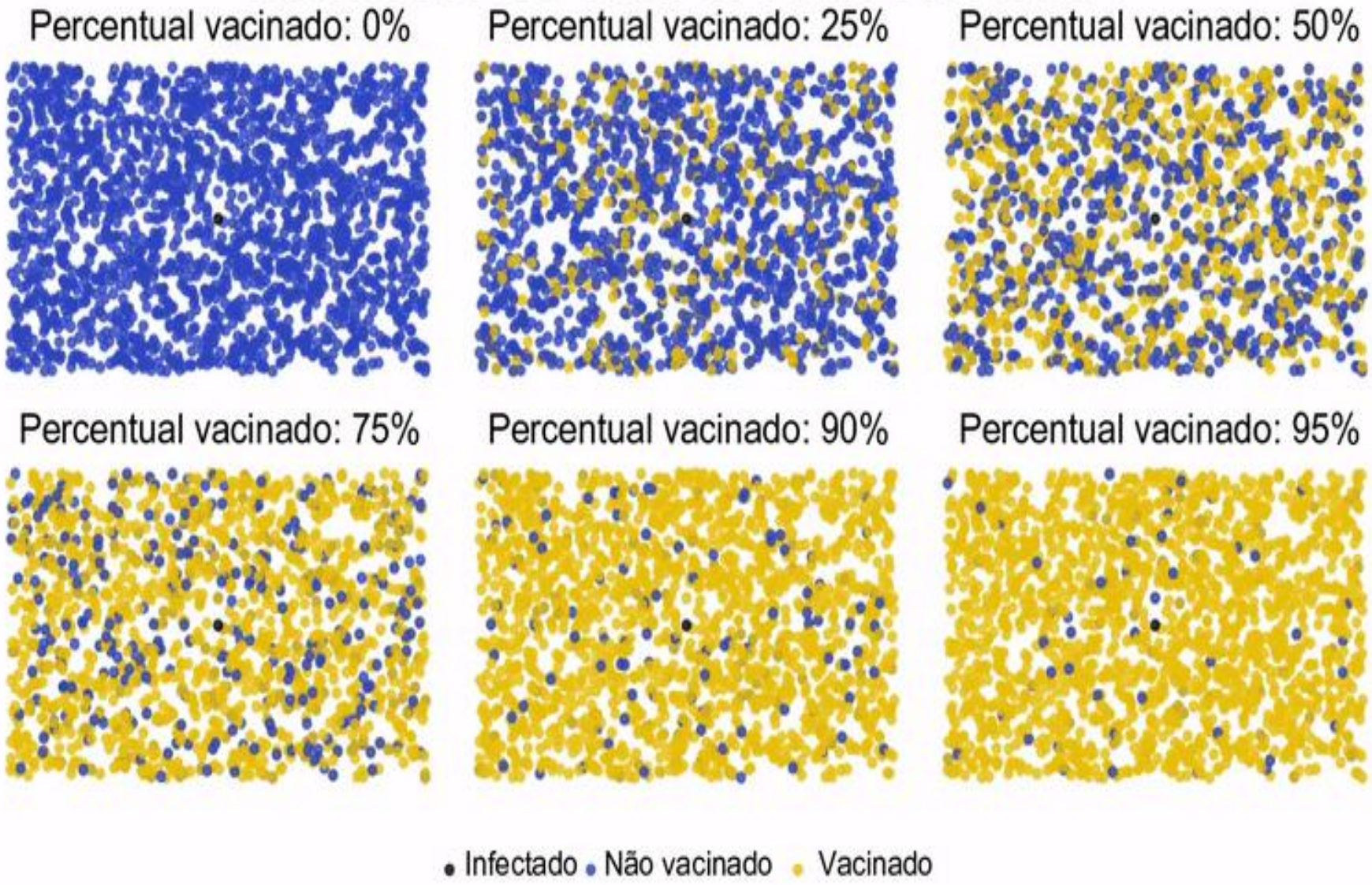
Epidemiologia das Doenças Transmissíveis ou Infecciosas

- O grau de resistência ou suscetibilidade do hospedeiro é um importante determinante do desfecho de uma infecção. A resistência (imunidade) é normalmente adquirida através de exposições prévias ou pela imunização contra o agente.
- O período de incubação - tempo decorrido entre a entrada do agente infeccioso e o aparecimento dos primeiros sintomas da doença - varia de poucas horas (intoxicação alimentar por estafilococos) até muitos anos (hepatite B e AIDS).
- A imunização é a proteção individual e coletiva (imunidade de grupo ou 'de rebanho') dos indivíduos suscetíveis a doenças transmissíveis através da administração de vacinas.

Períodos de Transmissibilidade

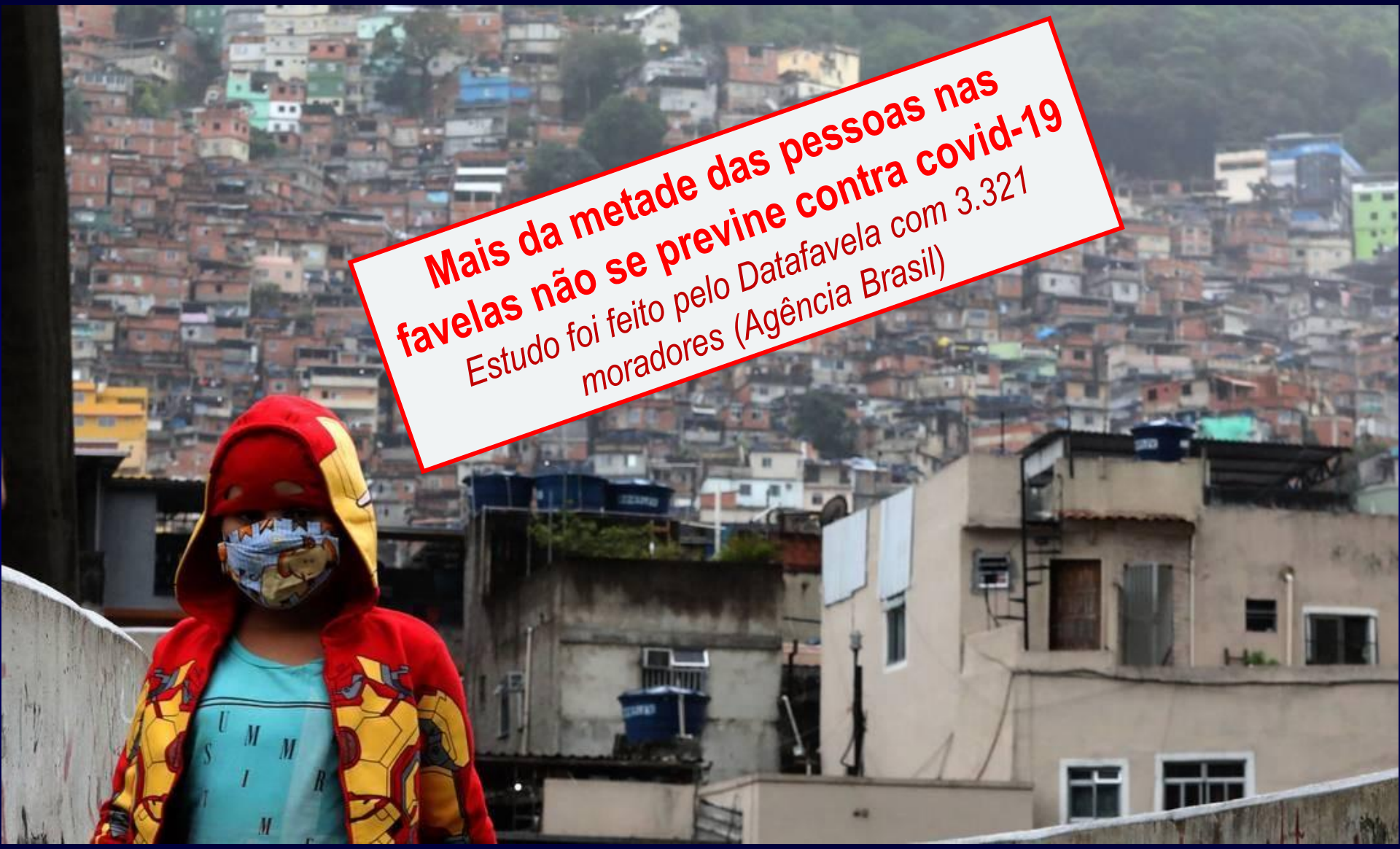


IMUNIDADE DE GRUPO: COMO FUNCIONA



Epidemiologia das Doenças Transmissíveis ou Infecciosas

- O **ambiente** desempenha um papel importante no desenvolvimento das doenças transmissíveis.
- Principais fatores ambientais que podem influenciar os estágios na cadeia de infecção: condições sanitárias, aspectos climáticos (temperatura e umidade, por ex.), poluição aérea e qualidade da água, dentre outros.
- Além disso, fatores socioeconômicos, tais como, densidade populacional, aglomeração e pobreza, também são de grande importância ao desenvolvimento de epidemias.


Mais da metade das pessoas nas favelas não se previne contra covid-19
Estudo foi feito pelo Datafavela com 3.321 moradores (Agência Brasil)

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Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Finalmente, o **manejo de uma epidemia** envolve o tratamento dos casos, prevenindo a difusão da doença e monitorando os efeitos das medidas de controle ('vigilância').
- Medidas de controle podem ser dirigidas contra a fonte e a difusão da infecção através da proteção do hospedeiro suscetível.
- Concomitantemente, é preciso identificar, controlar e eliminar reservatórios, assim como interromper as vias de transmissão, removendo as fontes de disseminação da infecção (veículos, vetores ou partículas aéreas).

Cadeia de Infecção e Medidas de Controle

Epidemiologia das Doenças Transmissíveis ou Infecciosas

- Uma vez que medidas de controle tenham sido implementadas, a vigilância epidemiológica deve continuar para assegurar sua aceitabilidade e efetividade.
- A vigilância pode coletar dados sobre qualquer elemento da cadeia causal de uma doença transmissível. O objetivo de um sistema de vigilância é geralmente restrito à quantidade de recursos humanos e financeiros disponíveis.
- Acompanhamento epidemiológico e estudos laboratoriais são geralmente indicados, principalmente para avaliar a relação custo-benefício no longo prazo.

Epidemiologia Clínica em Epidemias:
tipos de estudos epidemiológicos em epidemias (imunização)

Imunização e Vacinas

- Em epidemias, as vacinas permitem a prevenção e o controle de doenças transmissíveis, tornando-as componente obrigatório dos programas de saúde pública.
- Programas de imunização visam alterar a ecologia de determinados agentes infecciosos e o comportamento das doenças a eles associadas, buscando proteger a população.
- Aspectos considerados num programa de vacinação:
  - eficácia/efetividade e segurança da vacina;
  - aplicação de estratégias apropriadas à cobertura vacinal;
  - equidade no acesso à vacina (custo-benefício).

Imunização e Vacinas

- Objetivos da epidemiologia clínica aplicada à imunização:
  - sistematizar a aplicação do método epidemiológico na avaliação da eficácia (validade interna ⇨ pesquisa), da efetividade (validade externa ⇨ campo) e da segurança (eventos adversos) das vacinas;
  - monitorar o sucesso dos programas de vacinação (vigilância).
- Eficácia/efetividade de uma vacina: percentual de redução da incidência da doença entre vacinados e não vacinados.
- Vale ressaltar que o cálculo da eficácia/efetividade não leva em conta a redução da exposição determinada pela diminuição da incidência entre vacinados que vivem em contato com o grupo estudado (imunidade 'de rebanho').

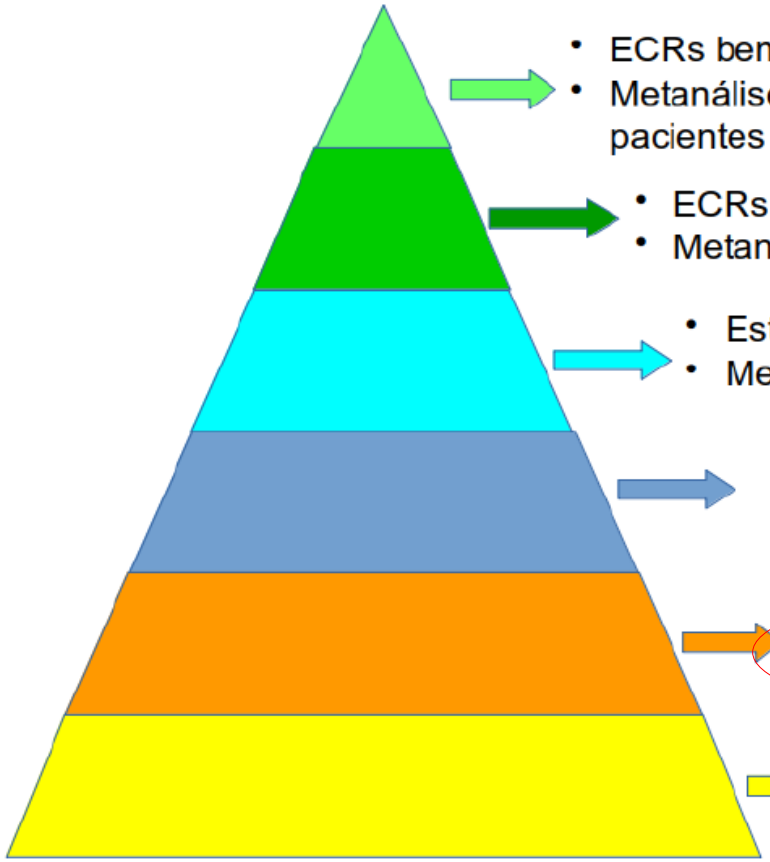
Tipos de Estudos Epidemiológicos

Tabela 3.1. Tipos de estudos epidemiológicos

Tipo de estudo	Nome alternativo	Unidade de estudo
Estudos observacionais		
Estudos descritivos (relato de caso ou série de casos)✓		
Estudos analíticos		
Ecológico ✓	Correlação	População (conjunto)
Transversal ✓	Prevalência	Indivíduo
Casos e controles ✓	Caso-referência	Indivíduo
Coorte ✓	Longitudinal (*Follow-up*)	Indivíduo
Estudos Experimentais	**Estudos de intervenção**	
Ensaio clínico randomizado controlado ✓	Ensaios clínicos	Pacientes
Ensaio clínico randomizado controlado com grupos (*clusters*) ✓		Grupos
Ensaios de campo		
Ensaios comunitários ✓	Estudos de intervenção na comunidade	Indivíduos saudáveis na comunidade

Bonita R et al. Epidemiologia básica. 2.ed. São Paulo: Editora Santos; 2010.

Pirâmide de Evidência da Pesquisa Clínica Epidemiológica



- ECRs bem conduzidos de grande porte
- Metanálise de ECRs envolvendo no total um grande número de pacientes

- ECRs bem conduzidos de pequeno porte
- Metanálise de ECRs de pequeno porte

- Estudos de coortes bem conduzidos
- Metanálise de estudos de cortes

Estudos de caso-controle bem conduzidos

Estudos pobremente controlados ou não controlados:
- ECRs com falhas metodológicas graves
- Estudos observacionais com alto potencial de vieses
- Série de casos

Opinião de Especialistas

Sergio M. Freire. Bioestatística Básica, 2020.

Estudos Epidemiológicos em Imunização

- Para avaliar a eficácia/efetividade (profilaxia) ou a segurança (eventos adversos) das vacinas, o método epidemiológico emprega estudos observacionais ou experimentais.
- Tanto os estudos observacionais (estudos de coorte, de caso controle, transversal, ecológico ou série de casos) quanto os experimentais (ensaio clínico randomizado controlado ou ensaio comunitário) examinam as relações entre determinados desfechos (doença, eventos adversos ou óbito) e vários fatores ou exposições (fonte de infecção ou vacina), que podem interferir na sua ocorrência ou em seu prognóstico ⇨ efeitos das exposições sobre os desfechos.

Estudos Epidemiológicos em Imunização

- Reiterando que a **validade da evidência (força de recomendação)** de um estudo se relaciona ao grau de confiança de seus resultados, o desenho e o planejamento dos estudos devem minimizar os erros sistemáticos que ofuscam a avaliação da eficácia da intervenção ou a ocorrência de eventos adversos da mesma:
  - viés de seleção dos pacientes (randomização dos pacientes);
  - viés de aferição dos dados (duplo cegamento dos envolvidos);
  - viés de confusão na avaliação dos desfechos (grupo controle).
- A averiguação da influência desses vieses nos resultados dos estudos é indispensável para a correta interpretação.

Estudos Epidemiológicos em Imunização

- Os **estudos observacionais** (descritivos e analíticos) são aqueles em que não há interferência do investigador, induzindo o grupo de estudo à exposição a fatores que participam ou podem participar do processo que leva à doença de interesse ou que altere seu prognóstico.
- Nesse delineamento de estudo, em se tratando da investigação da prevenção de doenças por vacinas (imunização), o pesquisador não interfere na condição do indivíduo ser suscetível ou imune, ou ainda na probabilidade do indivíduo suscetível ter tido contato ou não com uma fonte de infecção ('portador' sadio ou assintomático).

Estudos Epidemiológicos em Imunização

- Por sua vez, nos **estudos experimentais** ou **de intervenção,** o pesquisador controla fatores selecionados que podem ser de importância nesse processo ('portador').
- Quando aplicados para a avaliação da eficácia/efetividade da prevenção vacinal, o fator de interesse controlado pelo pesquisador é a intervenção, ou seja, a própria vacinação.
- Em ambos os tipos de estudos, quando estudamos vacinas, o fator ou exposição de interesse é a própria 'vacina' e os desfechos de interesse podem ser a 'ocorrência da doença' que a vacina se propõe a prevenir ou os possíveis 'eventos adversos' associados a ela.

Estudos Epidemiológicos em Imunização

- Independente do tipo de investigação (observacional ou experimental), quando existir um 'grupo de comparação' o estudo será analítico, permitindo identificar a associação entre determinada exposição e um desfecho, ou seja, entre uma intervenção (vacina) e a proteção contra uma doença.
- Quando não existir um grupo de comparação (grupo controle) e, portanto, o objetivo não é o de analisar associação entre exposição e desfecho, temos os estudos descritivos que visam, principalmente, a elaboração de hipóteses explicativas a serem testadas posteriormente pelos estudos analíticos. São os **estudos de caso ou de uma série de casos.**

Estudos Observacionais Analíticos
Estudo Transversal, Seccional ou de Corte

- É um tipo de estudo onde a relação exposição-doença em uma população é investigada em um momento particular, fornecendo um retrato (corte) da situação naquele momento.
- Avalia a relação entre as doenças e outras variáveis de interesse existentes em determinada população (exposição e desfecho são medidos simultaneamente).
- É utilizado para quantificar a prevalência de uma doença ou fator de risco, ou a acurácia de um teste diagnóstico.
- Na investigação de surtos epidêmicos, a realização de um estudo transversal medindo diversas exposições é, em geral, o primeiro passo para a determinação da sua causa.

Estudos Observacionais Analíticos
Estudo Transversal, Seccional ou de Corte

- Vantagens: de fácil e rápida execução; baixo custo; objetividade na coleta dos dados; não necessita seguimento dos indivíduos; facilidade para obter amostra representativa; ideal para descrever características dos eventos na população, identificar casos na comunidade e detectar grupos de maior risco.
- Desvantagens: baixa qualidade de dados retrospectivos (exposição passada pode estabelecer causalidade presente); relação cronológica entre eventos pode ser difícil de estabelecer; 'viés de prevalência'; dados de exposição atual podem não representar exposição passada.

Estudos Observacionais Analíticos
Estudo de Caso-Controle

- Constitui uma forma relativamente simples de investigar a causa das doenças, particularmente doenças raras.
- Neste tipo de estudo são incluídos dois grupos semelhantes a partir de uma população em risco, um com a doença (caso) e outro sem a doença (controle).
- Os pesquisadores 'olham para o passado' (estudo retrospectivo), para medir a frequência de exposição a um possível fator de risco nos dois grupos.
- Investiga se os dois grupos diferem na proporção de pessoas que tenham sido expostas a um mesmo fator de risco, buscando confirmar uma possível causalidade.

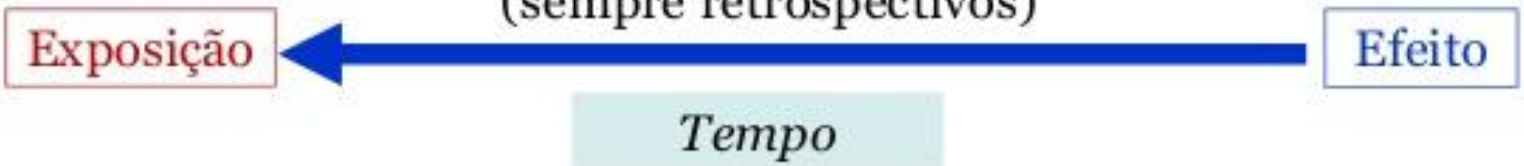
Estudos Observacionais Analíticos
Estudo de Caso-Controle

- Vantagens: relativamente barato e rápido; investiga fatores de risco; útil em doenças raras; permite consistência das medidas, em vista que exposição e efeito são medidos ao mesmo tempo; necessita de poucos indivíduos; útil no estudo de eventos adversos de drogas.
- Desvantagens: vulnerável a ‘viés de seleção’ de ‘casos’ e ‘controles’; vulnerável a ‘viés de observação’ (procura de resultados apenas onde é mais conveniente) e ‘viés de prevalência’; não é adequado para exposições ou fatores de risco raros; não pode obter estimativas da incidência da doença.

Estudos Observacionais

COORTE
(ou de incidência ou longitudinais)

CASO-CONTROLE
(sempre retrospectivos)



TRANSVERSAIS

Estudos Observacionais Analíticos
Estudo Ecológico

- Os estudos ecológicos (ou de correlação) são úteis para gerar hipóteses. Em um estudo ecológico, as unidades de análise são grupos de pessoas ao invés de indivíduos.
- Os estudos ecológicos são utilizados para comparar populações em diferentes lugares ao mesmo tempo ou, em uma série temporal, para comparar a mesma população em diferentes momentos (minimizando o viés socioeconômico).
- Níveis de mensuração: medidas agregadas (prevalência de doença ou cobertura vacinal, por ex.), medidas ambientais (nível de poluição do ar, por ex.) e medidas globais (densidade demográfica, por ex.).

Estudos Observacionais Analíticos
Estudo Ecológico

- Variáveis de análise grupais (medidas agregadas, ambientais ou globais): médias de estados, municípios ou bairros; IDH, prevalência, incidência, porcentagem ou outros coeficientes também podem ser usados.
- Uma vez que a unidade de análise é a 'população', a relação entre exposição (vacina) e efeito (doença) no nível individual não pode ser estabelecida, tirando-se conclusões impróprias **("falácia ecológica")** quando se faz essa correlação.
- O viés de confusão ocorre porque a associação observada entre as variáveis no nível de grupo, geralmente, não representa a associação existente no nível individual.

Estudos Observacionais Analíticos
Estudo Ecológico

- Vantagens: simples, rápido e de baixo custo; trabalha com grandes populações (comparações das taxas de incidência de doenças); investigação de cluster de doenças; disponibilidade de grandes bases de dados.
- Desvantagens: problemas metodológicos e na análise dos dados, tais como: limitação na inferência causal (população/indivíduo); informações de qualidade variável (dados de diferentes fontes) e com ambiguidade temporal (coleta de dados em épocas distintas); fatores de confusão (ocorrência de desfechos distintos); dificuldade na análise estatística porque a unidade de observação é o grupo, etc.

Estudos Experimentais
Ensaio Comunitário

- Nesse tipo de estudo experimental, os grupos de tratamento são comunidades ao invés de indivíduos.
- Esse delineamento é particularmente apropriado para doenças que tenham suas origens nas condições sociais e que possam ser facilmente influenciadas por intervenções dirigidas ao comportamento do grupo ou do indivíduo (doenças cardiovasculares, por ex.).
- Uma limitação desse tipo de delineamento é que somente um pequeno número de comunidades pode ser incluído e a alocação aleatória das comunidades não é muito prática.

Estudos Experimentais
Ensaio Comunitário

- Assim sendo, outros métodos são requeridos para assegurar que quaisquer diferenças encontradas ao final do estudo possam ser atribuídas à intervenção e não a diferenças inerentes às comunidades (como citado na "falácia ecológica").
- Além disso, é difícil isolar as comunidades onde a intervenção está sendo conduzida devido a mudanças sociais em curso.
- Assim como nos estudos ecológicos, outros fatores relacionados aos 'grupos' podem estar influenciando o desfecho, além da intervenção. No caso de epidemias, seriam: medidas de higiene adotadas na comunidade, qualidade dos serviços de saúde locais, monitoramento dos casos, etc.

ARTIGO ORIGINAL

Análise dos eventos adversos após aplicação de vacinas em Minas Gerais, 2011: um estudo transversal*

doi: 10.5123/S1679-49742016000100005

Analysis of adverse events following immunization in Minas Gerais, Brazil, 2011: a cross-sectional study

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Resumo

Objetivo: analisar os principais eventos adversos pós-vacinação ocorridos no estado de Minas Gerais, Brasil, em 2011. **Métodos**: estudo transversal, a partir de dados secundários do Sistema de Informação de Eventos Adversos Pós-Vacinação. **Resultados**: foram observados 1.449 eventos no estado; mais da metade deles acometeu crianças menores de 1 ano (56,1%; OR=1,39; $IC_{95\%}$ 1,08;1,78); os maiores coeficientes de incidência por 100 mil doses aplicadas foram observados nas regiões Triângulo do Sul (36,3), Noroeste (25,7) e Sul (22,7); a vacina tetravalente apresentou a maior reatogenicidade (46,1%); o evento mais frequente foi o episódio hipotônico hiporresponsivo (15,9%); os eventos foram significativamente associados às vacinas inativadas (OR=4,08; $IC_{95\%}$ 3,51;4,75); a maioria dos eventos notificados foi encerrada como 'indefinido' (58,9%). **Conclusão**: foram observados eventos em todas as regiões do estado, mais frequentes após a administração de vacinas inativadas e entre crianças menores de 1 ano.

Palavras-chave: Vacinação/efeitos adversos; Sistemas de Informação em Saúde; Avaliação em Saúde.

MZT 02.07.20

Tabela 3 – Distribuição dos imunobiológicos segundo o número de doses aplicadas, frequência (%) e coeficiente de incidência (CI) de eventos adversos pós-vacinação (EAPV) no estado de Minas Gerais, 2011

Tipos de imunobiológicos	Doses aplicadas (n)	EAPV		
		n	%	CI/100 mil doses
Bacilo de Calmette-Guérin (BCG)	263.013	73	5,0	27,7
Vacina dupla adulto (DT) inativada	1.386.669	138	9,6	10,0
Vacina para febre amarela (FA)	1.557.044	44	3,0	2,8
Vacina para hepatite B (HB)	1.386.572	31	2,1	2,2
Vacina meningocócica C conjugada (MncC)	819.218	48	3,3	5,9
Vacina pneumocócica conjugada 10-valente (Pn10)	1.013.918	47	3,2	4,6
Vacina pneumocócica 23-valente (Pn23)	27.087	17	1,3	62,8
Vacina para influenza	365.768	207	14,3	56,6
Vacina para sarampo, caxumba e rubéola (SCR)	634.038	51	3,5	8,0
Vacina adsorvida para difteria, tétano, *pertussis* e *Haemophilus influenzae* b (tetravalente)	787.067	668	46,1	84,9
Vacina oral contra poliomielite (VOP)	1.109.275	9	0,6	0,8
Vacina para rotavírus humano (VORH)	504.756	18	1,2	3,6
Soros e imunoglobulinas	735.608	98	6,8	13,3
Total	10.590.033	1.449	100,0	13,7

Tabela 5 – Tipos de eventos adversos pós-vacinação (EAPV) notificados no estado de Minas Gerais, 2011

Tipos de EAPV notificados	n	%
Abscesso local frio	30	2,0
Abscesso local quente	75	5,2
Artralgia	3	0,2
Cefaleia	24	1,7
Cefaleia e vômito	10	0,7
Choro persistente	11	0,8
Convulsão afebril	21	1,4
Convulsão febril	48	3,3
Dificuldade de deambular	7	0,5
Dor, rubor e calor	125	8,6
Encefalopatia aguda	1	0,1
Enduração	171	11,7
Episódio hipotônico hiporresponsivo	230	15,9
Exantema generalizado	59	4,1
Febre maior ou igual a 39,5°C	78	5,4
Febre menor que 39,5°C	170	11,7

ARTICLE

Vaccine Effectiveness Against Laboratory-Confirmed Influenza in Children 6 to 59 Months of Age During the 2003–2004 and 2004–2005 Influenza Seasons

Katherine W. Eisenberg, BA[a], Peter G. Szilagyi, MD, MPH[b], Gerry Fairbrother, PhD, MPH[c], Marie R. Griffin, MD, MPH[d,e], Mary Staat, MD, MPH[f], Laura P. Shone, DrPH, MSW[b,g], Geoffrey A. Weinberg, MD[b], Caroline B. Hall, MD[b,h], Katherine A. Poehling, MD, MPH[i,j], Kathryn M. Edwards, MD[k], Geraldine Lofthus, PhD[h], Susan G. Fisher, PhD[a], Carolyn B. Bridges, MD[l], Marika K. Iwane, PhD, MPH[l], and the New Vaccine Surveillance Network

Departments of [a]Community and Preventive Medicine, [b]Pediatrics, and [h]Medicine, School of Medicine and Dentistry, and [g]Department of Clinical Nursing, School of Nursing, University of Rochester, Rochester, New York; [c]Health Policy and Clinical Effectiveness Division and [f]Division of Infectious Diseases, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio; Departments of [d]Preventive Medicine, [e]Medicine, and [k]Pediatrics, Vanderbilt University Medical Center, Nashville, Tennessee; Departments of [i]Pediatrics and [j]Epidemiology and Prevention, Wake Forest University Medical Center, Winston-Salem, North Carolina; [l]National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia

Financial Disclosure: Dr Griffin received research support from MedImmune. Dr Weinberg received research support from MedImmune and Astellas and acted as a consultant for MedImmune. Dr Edwards received research support from Sanofi Pasteur, MedImmune, VaxGen, Merck, Wyeth, and Novartis and acted as a consultant for MedImmune and Wyeth.

What's Known on This Subject

Because of recent changes in vaccination recommendations, many more young children are now receiving vaccinations to protect against influenza. However, influenza vaccine effectiveness has not been well characterized in young children and can vary from season to season.

What This Study Adds

We estimated the effectiveness of vaccination against laboratory-confirmed influenza disease in 2 influenza seasons. Our results suggested that, even in an influenza season with a suboptimal vaccine match, one half of influenza-related visits could be prevented with recommended vaccination.

ABSTRACT

OBJECTIVE. The goal was to estimate the effectiveness of influenza vaccination against laboratory-confirmed influenza during the 2003–2004 and 2004–2005 influenza seasons in children 6 to 59 months of age.

METHODS. We conducted a case-control study with children with medically attended, acute respiratory infections who received care in an inpatient, emergency department, or outpatient clinic setting during 2 consecutive influenza seasons. All children residing in Monroe County, New York, Davidson County, Tennessee, or Hamilton County, Ohio, were enrolled prospectively at the time of acute illness and had nasal/throat swabs tested for influenza with cultures and/or polymerase chain reaction assays. Children with laboratory-confirmed influenza were case subjects and children who tested negative for influenza were control subjects. Child vaccination records from the parent and the child's physician were used to determine and to validate influenza vaccination status. Influenza vaccine effectiveness was calculated as (1 − adjusted odds ratio) × 100.

RESULTS. We enrolled 288 case subjects and 744 control subjects during the 2003–2004 season and 197 case subjects and 1305 control subjects during the 2004–2005 season. Six percent and 19% of all study children were fully vaccinated according to immunization guidelines in the respective seasons. Full vaccination was associated with significantly fewer influenza-related inpatient, emergency department, or outpatient clinic visits in 2004–2005 (vaccine effectiveness: 57%) but not in 2003–2004 (vaccine effectiveness: 44%). Partial vaccination was not effective in either season.

CONCLUSIONS. Receipt of all recommended doses of influenza vaccine was associated with halving of laboratory-confirmed influenza-related medical visits among children 6 to 59 months of age in 1 of 2 study years, despite suboptimal matches between the vaccine and circulating influenza strains in both years. *Pediatrics* 2008;122:911–919

www.pediatrics.org/cgi/doi/10.1542/peds.2007-3304

doi:10.1542/peds.2007-3304

The contents of this article are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

Key Words
children, vaccine effectiveness, laboratory-confirmed, influenza

Abbreviations
ED—emergency department
ACIP—Advisory Committee on Immunization Practices
VE—vaccine effectiveness
NVSN—New Vaccine Surveillance Network
ARI—acute respiratory illness
RT—reverse transcription
PCR—polymerase chain reaction
CI—confidence interval
aOR—adjusted odds ratio

Accepted for publication Feb 20, 2008

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[Eficácia da vacina contra a gripe (desfecho: procura por serviços médicos), confirmada em laboratório (sorologia para anticorpos), em crianças de 6 a 59 meses de idade durante as estações de gripe de 2003-2004 e 2004-2005] (Pediatrics, 2008)

- Objetivo: estimar a eficácia da vacinação contra influenza confirmada em laboratório durante as estações de influenza de 2003-2004 e 2004-2005 em crianças de 6 a 59 meses (5 anos).
- Método: estudo de caso-controle em crianças com IVAS, vacinadas ou não, atendidas em hospital/ambulatório em 2 estações seguidas de influenza; crianças com teste laboratorial positivo para influenza (casos) e com teste negativo (controle).
- Resultados: Foram recrutados 288 casos e 744 controles durante 2003-2004 e 197 casos e 1305 controles durante 2004-2005. 6% e 19% de todas as crianças do estudo foram vacinadas nas respectivas estações. A vacinação completa foi associada à redução significativa de visitas hospitalares/ambulatoriais relacionadas à influenza em 2004-2005 (eficácia da vacina: 57%), mas não em 2003-2004 (eficácia da vacina: 44%). A vacinação parcial não foi eficaz em nenhuma estação.
- Conclusão: A vacinação contra a influenza foi associada à metade das consultas médicas relacionadas à influenza em 1 de 2 anos de estudo.

Artigo Original
Acta Paul Enferm. 2012;25(5):686-93.

Relação entre morbidade hospitalar e cobertura vacinal contra Influenza A*

Relationship between hospital morbidity and vaccination coverage against Influenza A

Relación entre morbilidad hospitalaria y cobertura de inmunización contra la Influenza A

Fernanda Ribeiro Baptista Marques[1], Mara Cristina Ribeiro Furlan[2], Patrícia Okubo[3], Sonia Silva Marcon[4]

RESUMO

Objetivo: Analisar o perfil dos indivíduos acometidos pelo vírus Influenza A (H1N1), e o impacto vacinal nos grupos prioritários à vacinação. **Métodos**: Estudo ecológico, observacional, de caráter retrospectivo, com população de indivíduos residentes na cidade de Maringá-PR e submetidos à internação por Influenza A entre 2009 e 2010. **Resultados:** No ano de 2009, ocorreram 614 internações decorrentes de infecção pelo vírus Influenza A em Maringá-PR. A disponibilização da vacina fez com que o número de acometidos diminuísse para 169 em 2010, ocorrendo impacto vacinal nos seguintes grupos populacionais: gestantes, portadores de doenças crônicas e adultos de 20 a 39 anos. **Conclusão:** Identificou-se a necessidade de estender a faixa etária de vacinação para crianças de 2 a 4 anos e preenchimento dos impressos de vacinação dos indivíduos e grupos vacinados com maior rigor.

Descritores: Vírus da Influenza A; Epidemiologia; Enfermagem; Vacinas contra Influenza/efeitos adversos

Contudo, devemos atentar para o fato de que a minoria das internações não é decorrente apenas da vacina, embora esta seja de grande valia, outros fatores também podem estar associados como: aderência maciça ao emprego de medidas de higiene por grande parte da população, qualidade dos serviços de saúde no combate à pandemia, monitoramento da Vigilância Epidemiológica dos casos positivos à infecção e, inclusive, a possibilidade de mudança do vírus circulante, entre outros.

É importante destacar a necessidade de maior rigor no preenchimento dos impressos de indivíduos e grupos vacinados, pelo excesso de doses administradas na população alvo, bem como o preenchimento das fichas de notificação, com a finalidade de obter maiores e melhores dados sobre a pandemia, possibilitando, assim, metas de campanha fidedignas à realidade.

" Além disso, uma vez que a unidade de análise é a população, a relação entre exposição (vacina) e efeito (doença) no nível individual não pode ser estabelecida, tirando-se conclusões impróprias **(falácia ecológica)** quando se faz essa correlação."

The Journal of Infectious Diseases

MAJOR ARTICLE

IDSA Infectious Diseases Society of America · hivma hiv medicine association · OXFORD

Comparative Reactogenicity of Enhanced Influenza Vaccines in Older Adults

Benjamin J. Cowling,[1] Mark G. Thompson,[2] Tiffany W. Y. Ng,[1] Vicky J. Fang,[1] Ranawaka A. P. M. Perera,[1] Nancy H. L. Leung,[1] Yuyun Chen,[1] Hau Chi So,[1] Dennis K. M. Ip,[1] and A. Danielle Iuliano[2]

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Background: We analyzed data from a randomized controlled trial on the reactogenicity of 3 enhanced influenza vaccines compared with standard-dose (SD) inactivated influenza vaccine.

Methods: We enrolled community-dwelling older adults in Hong Kong, and we randomly allocated them to receive 2017–2018 northern hemisphere formulations of SD vaccine (FluQuadri; Sanofi Pasteur), MF59-adjuvanted vaccine (FLUAD; Seqirus), high-dose (HD) vaccine (Fluzone High-Dose; Sanofi Pasteur), or recombinant hemagglutinin vaccine (Flublok; Sanofi Pasteur). Local and systemic reactions were evaluated at days 1, 3, 7, and 14 after vaccination.

Results: Reported reactions were generally mild and short-lived. Systemic reactions occurred in similar proportions of participants by vaccine. Some local reactions were slightly more frequently reported among recipients of the MF59-adjuvanted and HD vaccines than among SD vaccine recipients. Participants reporting feverishness 1 day after vaccination had mean fold rises in postvaccination hemagglutination inhibition titers that were 1.85-fold higher (95% confidence interval, 1.01–3.38) for A(H1N1) than in those who did not report feverishness.

Conclusions: Some acute local reactions were more frequent after vaccination with MF59-adjuvanted and HD influenza vaccines, compared with SD inactivated influenza vaccine, whereas systemic symptoms occurred at similar frequencies in all groups. The association between feverishness and immunogenicity should be further investigated in a larger population.

Clinical Trials Registration: NCT03330132.

Keywords. influenza; vaccination; reactogenicity.

Downloaded from https://academic.oup.com/jid/article-abstract/doi/10.1093/infdis/ji

MZT 02.07.20

Table 2. Association of Feverishness on Day 1 with Mean Fold Rises in Antibody Titers from Day 0 to Day 30, Measured by Hemagglutination Inhibition Assay Against A(H1N1), A(H3N2) and B/Victoria Lineage Viruses (n = 688)[a]

Antibody Titers)

Variables	Ratio (95% CI)		
	MFR Against A(H1N1)	MFR Against A(H3N2)	MFR Against B/Victoria
Reported feverishness within 1 d after vaccination			
No	1.00	1.00	1.00
Yes	1.85 (1.01–3.38)[b]	1.52 (.94–2.47)	1.56 (.95–2.56)
Vaccine type			
Standard-dose quadrivalent	1.00	1.00	1.00
MF59-adjuvanted trivalent	1.30 (1.03–1.63)[b]	1.24 (1.03–1.49)[b]	0.88 (.73–1.07)
High-dose trivalent	1.55 (1.23–1.95)[b]	1.37 (1.14–1.65)[b]	1.25 (1.04–1.51)[b]
Recombinant HA quadrivalent	1.28 (1.02–1.61)[b]	1.52 (1.27–1.83)[b]	0.90 (.75–1.09)
Each 2-fold increase in prevaccination HAI titer against corresponding antigen	0.82 (.78–.86)[b]	0.67 (.65–.70)[b]	0.77 (.74–.80)[b]
Age group			
<75 y	1.00	1.00	1.00
≥75 y	0.82 (.68–.98)[b]	0.99 (.86–1.15)	0.93 (.80–1.08)

Abbreviations: CI, confidence interval; HA, hemagglutinin; HAI, hemagglutination inhibition; MFR, mean fold rise.

[a]Antibody titers were analyzed using a log-linear model. A ratio of 2 would indicate that participants reporting feverishness (mild, moderate, or severe) on day 1 had an average of twice the MFR in HAI titer from day 0 to day 30, compared with participants who did not report feverishness.

Epidemiologia Clínica Homeopática em Epidemias:

premissas para a elaboração de estudos epidemiológicos

Epidemiologia Homeopática das Doenças Epidêmicas
Diretrizes para o Manejo Homeopático das Epidemias

- De forma análoga às doenças agudas e crônicas, Samuel Hahnemann estipula diretrizes semiológicas e terapêuticas individualizantes na abordagem das doenças epidêmicas.
- Assim como cada enfermo apresenta um conjunto de aspectos característicos que o difere dos demais indivíduos acometidos pela mesma doença aguda ou crônica, cada epidemia "é um fenômeno com suas próprias características", devendo ser diferenciada das anteriores (*Organon,* § 100):
  - "Na investigação da essência sintomática das doenças epidêmicas, é indiferente que tenha ocorrido algo semelhante no mundo, sob este ou aquele nome."

Epidemiologia Homeopática das Doenças Epidêmicas

Diretrizes para o Manejo Homeopático das Epidemias

- Com esse alerta, Hahnemann critica a aplicação do conhecimento obtido em epidemias prévias em novos surtos da mesma doença, sem que seja realizado um "exame meticuloso do quadro puro da doença atual" (*Organon,* § 100).
- Como a imagem do quadro patológico das doenças coletivas surge, apenas, após a observação de um número considerado de doentes, Hahnemann sugere a observação de vários casos para formar o "quadro completo da doença", embasado no "conjunto característico de seus sintomas e sinais" segundo a semiologia homeopática (*Organon,* § 101).

Epidemiologia Homeopática das Doenças Epidêmicas

Diretrizes para o Manejo Homeopático das Epidemias

- Na busca pela 'essência' ou 'gênio' da epidemia (gênio epidêmico), que permitirá por semelhança identificar o medicamento mais apropriado, o "quadro característico da epidemia" será formado pela totalidade dos sinais e sintomas característicos. Esse medicamento individualizado poderá ser aplicado no tratamento dos pacientes acometidos pelo mesmo surto da doença (*Organon,* § 102).
- Mantendo sua coerência epistemológica, Hahnemann enfatiza a premissa de utilizar 'substâncias simples e únicas' no tratamento adequado das epidemias (*Organon,* § 241):
  - "medicamento homeopático (específico) para todos os casos".

Epidemiologia Homeopática das Doenças Epidêmicas
Diretrizes para o Manejo Homeopático das Epidemias

- Além de indicar o medicamento homeopático individualizado como medida terapêutica nos casos manifestos da doença epidêmica, Hahnemann também descreve a utilização da homeopatia individualizada como prática profilática em epidemias de febre intermitente (*Organon,* § 241).
- No escrito menor "Cura e prevenção da febre escarlate", Hahnemann descreve o emprego da *Atropa belladonna* na profilaxia da escarlatina, em vista de ser o medicamento do gênio epidêmico para o tratamento da fase inicial da doença:
  - "um remédio que é capaz de rapidamente bloquear uma doença em seus primórdios também deve ser o seu melhor preventivo".

Epidemiologia Homeopática das Doenças Epidêmicas

Diretrizes para o Manejo Homeopático das Epidemias

- Apesar de reconhecer os benefícios da vacina antivariólica, introduzida pelo seu contemporâneo Edward Jenner em 1796, Hahnemann critica o emprego de ultradiluições de subprodutos da doença ou do agente patogênico *(nosódios)* como método profilático (isoprofilaxia) ou tratamento *isopático,* sem a experimentação patogenética do subproduto e a aplicação da similitude individualizante:
  - "Mas, daí, a pretensão de curar com uma substância morbífica humana (por ex. um *Psorikum* retirado da sarna humana) a mesma doença humana, a sarna humana ou um mal dela decorrente, vai uma grande distância! Nada além de padecimento e agravamento da doença resulta disso. (*Organon,* nota do § 56)"

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The COVID-19 outbreak is an emerging, rapidly evolving situation.

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Home > Health Information > Homeopathy

Homeopathy

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No Evidence To Support Homeopathic Immunizations

Certain homeopathic products (called "nosodes" or "homeopathic immunizations") have been promoted by some as substitutes for conventional immunizations, but the U.S. Centers for Disease Control and Prevention says there's no credible scientific evidence to support such claims. The National Center for Complementary and Integrative Health (NCCIH) supports the Centers for Disease Control and Prevention's recommendations for immunizations/vaccinations. To learn more about vaccines visit www.vaccines.gov.

Table 1. Homeopathic preventative program against infectious diseases

Recommended age	Remedy	Potency
1 month	Pertussin	200
2 months	Pertussin	200, 200, 200
3 months	Pneumococcinum	200
4 months	Pneumococcinum	200, 200, 200
5 months	Lathyrus sativus	200
6 months	Lathyrus sativus	200, 200, 200
7 months	Haemophilis	200
8 months	Haemophilis	200, 200, 200
9 months	Meningococcinum	200
10 months	Meningococcinum	200, 200, 200
11 months	Tetanus Toxin	200
12 months	Tetanus Toxin	200, 200, 200
14 months	Pertussin	10M, 10M, 10M
16 months	Pneumococcinum	10M, 10M, 10M
18 months	Lathyrus sativus	10M, 10M, 10M
20 months	Haemophilis	10M, 10M, 10M
22 months	Meningococcinum	10M, 10M, 10M
24 months	Tetanus Toxin	10M, 10M, 10M
26 months	Pertussin	10M, 10M, 10M
30 months	Pneumococcinum	10M, 10M, 10M
36 months	Lathyrus sativus	10M, 10M, 10M
40 months	Haemophilis	10M, 10M, 10M
44 months	Meningococcinum	10M, 10M, 10M
48 months	Tetanus Toxin	10M, 10M, 10M
52 months	Pertussin	10M, 10M, 10M
58 months	Pneumococcinum	10M, 10M, 10M
64 months	Lathyrus sativus	10M, 10M, 10M
70 months	Haemophilis	10M, 10M, 10M
76 months	Meningococcinum	10M, 10M, 10M
84 months	Tetanus Toxin	10M, 10M, 10M

Isaac Golden. Homoeopathic preventative program against infectious diseases. In: The latest research into the effectiveness and safety of long-term homoeoprophylaxis. Homeopathy 4 Everyone, December 16, 2006

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7 months	Haemophilis	200
8 months	Haemophilis	200, 200, 200
9 months	Meningococcinum	200
10 months	Meningococcinum	200, 200, 200
11 months	Tetanus Toxin	200
12 months	Tetanus Toxin	200, 200, 200
14 months	Pertussin	10M, 10M, 10M
16 months	Pneumococcinum	10M, 10M, 10M
18 months	Lathyrus sativus	10M, 10M, 10M
20 months	Haemophilis	10M, 10M, 10M
22 months	Meningococcinum	10M, 10M, 10M
24 months	Tetanus Toxin	10M, 10M, 10M
26 months	Pertussin	10M, 10M, 10M
30 months	Pneumococcinum	10M, 10M, 10M
36 months	Lathyrus sativus	10M, 10M, 10M
40 months	Haemophilis	10M, 10M, 10M
44 months	Meningococcinum	10M, 10M, 10M
48 months	Tetanus Toxin	10M, 10M, 10M
52 months	Pertussin	10M, 10M, 10M
56 months	Pneumococcinum	10M, 10M, 10M
64 months	Lathyrus sativus	10M, 10M, 10M
70 months	Haemophilis	10M, 10M, 10M
76 months	Meningococcinum	10M, 10M, 10M
84 months	Tetanus Toxin	10M, 10M, 10M

Isaac Golden. Homoeopathic preventative program against infectious diseases. In: The latest research into the effectiveness and safety of long-term homoeoprophylaxis. Homeopathy 4 Everyone, December 16, 2006

Isso é um absurdo!!!
Sem qualquer embasamento científico!!!

Epidemiologia Homeopática das Doenças Epidêmicas

Diretrizes para o Manejo Homeopático das Epidemias

- Em sua obra *Lições de filosofia homeopática* (Lição III), James Tyler Kent descreve um protocolo semiológico para diagnosticar o grupo de medicamentos do 'gênio epidêmico', fundamentando-se nas premissas hahnemannianas citadas anteriormente.
- Sugere a observação cuidadosa de 20 pacientes acometidos pela doença em questão, registrando todos os sintomas presentes de forma esquemática (classificação repertorial), os quais ao serem considerados coletivamente "apresentarão uma imagem, como se um único homem houvesse expressado todos os sintomas".

Epidemiologia Homeopática das Doenças Epidêmicas

Diretrizes para o Manejo Homeopático das Epidemias

- Colocando na frente de cada sintoma o número de pacientes que o manifestaram, o médico homeopata "descobrirá os traços essenciais da epidemia" ("natureza da enfermidade") através da totalidade sintomática comum e característica.
- Utilizando um repertório de sintomas, ele selecionará seis ou sete medicamentos que cubram a totalidade sintomática daquela epidemia (grupo de medicamentos homeopáticos individualizados do gênio epidêmico), fixando os quadros individuais de cada medicamento no estudo da Matéria Médica Homeopática.

Epidemiologia Homeopática das Doenças Epidêmicas

Diretrizes para o Manejo Homeopático das Epidemias

- Em seguida, procedendo do geral para o particular, pois "não há outro modo de proceder em homeopatia", o médico homeopata adaptará as características de cada enfermo às particularidades de cada medicamento selecionado (individualização terapêutica).
- Caso nenhum dos medicamentos selecionados seja útil, "o médico deve retornar à sua anamnese original para ver qual dos outros medicamentos é o adequado".
- Ressalta que a aplicação do gênio epidêmico na seleção dos medicamentos homeopáticos é um "trabalho árduo", mas traz resultados espetaculares.

Int J High Dilution Res 2009; 8(29): 155-172

Original Article

Homeopathy: a preventive approach to medicine?

Marcus Zulian Teixeira

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ABSTRACT

By applying the principle of therapeutic similarity, homeopathy seeks to stimulate the organism to react against its own disturbs. For homeopathic medicines to awaken effective homeostasis responses they must be individualized, this means that they must be chosen according to their similarity to the set of characteristic symptoms in patients. In this way, by aiming at decreasing individual susceptibility predisposing to disease, homeopathic medicines have healing and preventive effects in many human illnesses. On the other hand, homeopathic medicines may have specific indications in the treatment and prevention of epidemic diseases provided they are also chosen according to the particular set of symptoms peculiar to a given epidemic, viz. the so-called "epidemic genius", as historical examples show. This update paper discusses the epistemological foundations of Hahnemann's homeopathy as a preventive medical approach, the scientific evidences supporting its clinical application and the minimum requirements to employ it both therapeutically and preventively in epidemics.

Keywords: Homeopathy; Promotion of health; Prevention of diseases; Prevention and control; Collective diseases; Epidemic genius; Isotherapy; Vaccination

Revista de Homeopatia
2010;73(1/2):36-56

Homeopatia nas doenças epidêmicas: conceitos, evidências e propostas

Marcus Zulian Teixeira*

Resumo

Empregando o princípio da similitude curativa, a homeopatia visa estimular o organismo a reagir contra os seus próprios distúrbios. No entanto, para que o medicamento homeopático desperte uma reação homeostática efetiva, ele precisa ser individualizado, ou seja, ser escolhido pela semelhança com o conjunto de sintomas característicos do binômio doente-doença. Dessa forma, buscando diminuir as suscetibilidades individuais que predispõe ao adoecer, o medicamento homeopático atua curativa e preventivamente em muitas doenças humanas. Por outro lado, possui indicação específica no tratamento e na prevenção das doenças epidêmicas, desde que escolhido individualmente segundo o conjunto de sintomas peculiares à epidemia (denominado "gênio epidêmico"), com exemplos históricos descritos na literatura. Nessa atualização, iremos discorrer sobre as premissas epistemológicas que fazem da homeopatia hahnemanniana uma prática médica preventiva, as evidências científicas que endossam sua aplicação clínica e os requisitos mínimos para utilizá-la terapêutica e preventivamente nas doenças epidêmicas.

Palavras-chave

Homeopatia; Promoção da saúde; Prevenção de doenças; Doenças coletivas; Gênio epidêmico

*Homeopatía: ¿Un Enfoque Preventivo de la Medicina?

**Marcus Zulian Teixeira

PALABRAS CLAVE: Homeopatía, Promoción de la salud, Prevención de enfermedades, Control y prevención, Enfermedades colectivas, Genio epidémico, Isoterapia, Vacunación.

Resumen

Aplicando el principio de similitud terapéutica, la Homeopatía busca estimular al organismo para que reaccione en contra de su propia perturbación. Para que los medicamentos homeopáticos puedan despertar respuestas homeostáticas eficaces deben ser individualizados, esto significa que deben ser elegidos en función de su similitud con el conjunto de síntomas característicos de los pacientes. De esta manera, teniendo el propósito de disminuir la susceptibilidad individual que predispone a la enfermedad, los medicamentos homeopáticos curan y generan efectos preventivos en muchas enfermedades humanas.

Por otra parte, los medicamentos homeopáticos pueden tener indicaciones específicas en el tratamiento y prevención de enfermedades epidémicas, con la condición de que también se elijan de acuerdo con el conjunto particular de síntomas peculiares de una epidemia determinada, a saber, el llamado "genio epidémico", como lo muestran varios ejemplos históricos. En este trabajo se analiza la actualización de las bases epistemológicas de la Homeopatía de Hahnemann desde el enfoque médico preventivo, las evidencias científicas que apoyan su aplicación clínica y los requisitos mínimos para emplearla tanto terapéutica como preventivamente en las epidemias.

Abstract

By applying the principle of therapeutic similarity, homeopathy seeks to stimulate the organism to react against its own disturbs. For homeopathic medicines to awaken effective homeostasis responses they must be individualized, this means that it must be chosen according to their similarity to the set of characteristic symptoms in patients. In this way, by aiming at decreasing individual susceptibility predisposing to disease, homeopathic medicines have healing and preventive effects in many

*Este artículo es una traducción de un trabajo publicado originalmente en el International Journal of High Dilution Research; sus datos de referencia son: "Teixeira MZ. Homeopathy: a preventive approach to medicine? Int J High Dilution Research 2009; 8(29): 155-172". Disponible en http://www.feg.unesp.br/~ojs/index.php/ijhdr/article/view/360

**Escuela de Medicina de la Universidad de Sao Paulo (FMUSP), Sao Paulo, Brasil.

Recibido: junio, 2013. **Aceptado:** agosto, 2013

MZT 02.07.20

Int J High Dilution Res 2014; 13(46): 54-82

Debate

*Iso*prophylaxis is neither *homeo*prophylaxis nor *homeo*pathic immunization, but *iso*pathic immunization unsupported by the *homeo*pathic epistemological model: a response to Golden

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ABSTRACT

Homeopathy might be employed for the prevention of epidemic diseases (*homeo*prophylaxis) provided remedies are selected on an individual basis in compliance with the 'principle of symptom-based similitude' and according to the totality of symptoms peculiar to a given epidemic (remedy of the 'epidemic genius' or 'genus epidemicus'), as countless examples in the literature show. The use of nosodes for the prevention of epidemic diseases (*iso*prophylaxis), i.e., selected based on the 'principle of etiological identity' with full neglect of symptom-based individualization and pathogenetic trials, is not supported by the homeopathic epistemological model. As long as there are no reliable scientific evidences attesting to its efficacy and safety, 'isopathic immunization' might not be indicated as a regular replacement of classical immunization, as it would mean a transgression of the bioethical principles of 'beneficence' and 'non-maleficence'. Although many homeopathic practitioners systematically indicate that practice, it is condemned by homeopathic institutions worldwide. In this article, I elaborate on epistemological, ethical and scientific features of these disparate approaches to prophylaxis, which I had summarily addressed in a previous review.

Keywords: Homeopathy; Promotion of health; Prevention of diseases; Prevention and control; Collective diseases; Epidemic genius; Isotherapy; Vaccination

Artículo de revisión

*La *Iso*profilaxis no es *Homeo*profilaxis ni Inmunización Homeopática, sino Inmunización *Iso*pática, y no se Fundamenta en el Modelo Epistemológico Homeopático: Respuesta a Golden (parte 1 de 2)

**Marcus Zulian Teixeira

PALABRAS CLAVE: Homeopatía, Promoción de la salud, Prevención de enfermedades, Prevención y control, Enfermedades colectivas, Genio epidémico, Isoterapia, Vacunas.

Resumen

La Homeopatía puede utilizarse para la prevención de enfermedades epidémicas (**homeo**profilaxis) siempre que los medicamentos sean escogidos individualmente, de acuerdo al 'principio de semejanza sintomática' y a la totalidad de los síntomas característicos de una epidemia dada (remedio del 'genio epidémico'), como demuestran un gran número de ejemplos en la literatura. El uso de nosodes para prevención de epidemias (**iso**profilaxis), es decir, escogidos en función del 'principio de identidad etiológica', con total omisión de la individualización sintomática y los estudios patogenésicos, no tiene fundamento en el modelo epistemológico homeopático. Hasta que no se disponga de evidencias científicas confiables que atestigüen su eficacia y seguridad, no es posible indicar el remplazo de las vacunas tradicionales por una 'inmunización isopática', pues representaría una contravención de los principios bioéticos de 'beneficencia' y 'no-maleficencia'. Aunque es cierto que muchos homeópatas indican sistemáticamente tal remplazo, éste es criticado por instituciones homeopáticas de todo el mundo. En este artículo, discuto más extensamente aspectos epistemológicos, éticos y científicos de estas modalidades de profilaxis que abordé someramente en una revisión anterior.

Abstract

*Homeopathy might be employed for the prevention of epidemic diseases (**homeo**prophylaxis) provided remedies are selected on an individual basis in compliance with the 'principle of symptom-based similitude' and according to the totality of symptoms peculiar to a given epidemic (remedy of the 'epidemic genius' or 'genus epidemicus'), as countless examples in literature. The use of nosodes for*

*Artículo publicado originalmente como: Teixeira MZ. Isoprophylaxis is neither homeoprophylaxis nor homeopathic immunization, but isopathic immunization unsupported by the homeopathic epistemological model: a response to Golden. Int J High Dilution Res [online]. 2014; 13(46): 54-82. Available from: http://www.feg.unesp.br/ojs/index.php/ijhdr/article/view/707.

Se publica en La Homeopatía de México con la autorización expresa del autor.

Traducción del inglés al español: Gustavo Aguilar Velázquez.

**Escuela de Medicina de la Universidad de São Paulo (FMUSP), São Paulo, Brasil.

Recibido: febrero, 2015. **Aceptado:** marzo, 2015

Artículo de revisión

*La *Iso*profilaxis no es *Homeo*profilaxis ni Inmunización *Homeo*pática, sino Inmunización *Iso*pática, y no se Fundamenta en el Modelo Epistemológico Homeopático: Respuesta a Golden (parte 2 de 2)

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PALABRAS CLAVE: Vacunación, Genio epidémico, Isoprofilaxis, Homeoprofilaxis, Enfermedades infecciosas, Epistemología homeopática.

Resumen

Existen opiniones controversiales dentro de la Homeopatía en relación con la inmunización tradicional, las cuales señalan que ésta puede producir efectos adversos en algún porcentaje de la población que la recibe, e incluso agravar enfermedades crónicas, por lo que se ha propuesto una vacunación con preparados de elementos bacterianos llevados a dinamizaciones homeopáticas en un esquema de vacunación isoprofiláctica que podría sustituir a la vacunación tradicional.

En esta publicación, el doctor Teixeira realiza un análisis de este tipo de propuestas, señalando las ventajas y desventajas de las mismas. Desde su propio enfoque analiza también las opiniones que tienen varios organismos internacionales al respecto, y afirma que nada se compara en protección y seguridad a una prescripción homeopática individualizada que siga las premisas epistemológicas de este método.

Del mismo modo, el autor establece que, mientras no se tengan estudios clínicos de alta calidad metodológica que demuestren la seguridad y eficacia de una isoprofilaxis, ésta no podrá sustituir a los esquemas de vacunación tradicional.

Abstract

There are controversial opinions within homeopathy regarding traditional immunization, which refer that this may cause side effects in some percentage of the population receiving it, and may even aggravate some chronic diseases, this has led to propose a vaccination with bacterial elements homeopathically prepared in an isprophylactic vaccination scheme that could replace the traditional vaccination.

*Artículo publicado originalmente en el *International Journal of High Dilution Research*, volumen 13, número 46 (2014). Se publica en **La Homeopatía de México** con la autorización expresa del autor. Disponible en: http://www.feg.unesp.br/~ojs/index.php/ijhdr/article/view/707/687

Traducción del inglés al español: Gustavo Aguilar Velázquez.

**Escuela de Medicina de la Universidad de São Paulo (FMUSP), São Paulo, Brasil.

Recibido: febrero, 2015. **Aceptado:** marzo, 2015

MZT 02.07.20

Epidemiologia Homeopática das Doenças Epidêmicas
Estudo do Gênio Epidêmico da COVID-19

- Seguindo as premissas estipuladas por Hahnemann e Kent, utilizando os relatórios e estudos que descreveram os sinais e sintomas comuns a milhares de pacientes acometidos pela COVID-19 em Wuhan (China), levantamos alguns possíveis medicamentos homeopáticos individualizados para o gênio epidêmico da atual pandemia, em seus diferentes estágios:
  - "Aproximadamente 80% dos pacientes confirmados laboratoriais tiveram doença leve a moderada, o que inclui casos com e sem pneumonia; 13,8% têm doença grave (dispneia e infiltrado pulmonar > 50% do campo pulmonar, dentre outros); e 6,1% são críticos (insuficiência respiratória, choque séptico e/ou disfunção/falência de múltiplos órgãos)." (WHO, 2020, p. 12)

Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)

16-24 February 2020

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MZT 02.07.20

Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study

Nanshan Chen*, Min Zhou*, Xuan Dong*, Jieming Qu*, Fengyun Gong, Yang Han, Yang Qiu, Jingli Wang, Ying Liu, Yuan Wei, Jia'an Xia, Ting Yu, Xinxin Zhang, Li Zhang

Summary

Background In December, 2019, a pneumonia associated with the 2019 novel coronavirus (2019-nCoV) emerged in Wuhan, China. We aimed to further clarify the epidemiological and clinical characteristics of 2019-nCoV pneumonia.

Methods In this retrospective, single-centre study, we included all confirmed cases of 2019-nCoV in Wuhan Jinyintan Hospital from Jan 1 to Jan 20, 2020. Cases were confirmed by real-time RT-PCR and were analysed for epidemiological, demographic, clinical, and radiological features and laboratory data. Outcomes were followed up until Jan 25, 2020.

Findings Of the 99 patients with 2019-nCoV pneumonia, 49 (49%) had a history of exposure to the Huanan seafood market. The average age of the patients was 55·5 years (SD 13·1), including 67 men and 32 women. 2019-nCoV was detected in all patients by real-time RT-PCR. 50 (51%) patients had chronic diseases. Patients had clinical manifestations of fever (82 [83%] patients), cough (81 [82%] patients), shortness of breath (31 [31%] patients), muscle ache (11 [11%] patients), confusion (nine [9%] patients), headache (eight [8%] patients), sore throat (five [5%] patients), rhinorrhoea (four [4%] patients), chest pain (two [2%] patients), diarrhoea (two [2%] patients), and nausea and vomiting (one [1%] patient). According to imaging examination, 74 (75%) patients showed bilateral pneumonia, 14 (14%) patients showed multiple mottling and ground-glass opacity, and one (1%) patient had pneumothorax. 17 (17%) patients developed acute respiratory distress syndrome and, among them, 11 (11%) patients worsened in a short period of time and died of multiple organ failure.

Interpretation The 2019-nCoV infection was of clustering onset, is more likely to affect older males with comorbidities, and can result in severe and even fatal respiratory diseases such as acute respiratory distress syndrome. In general, characteristics of patients who died were in line with the MuLBSTA score, an early warning model for predicting mortality in viral pneumonia. Further investigation is needed to explore the applicability of the MuLBSTA score in predicting the risk of mortality in 2019-nCoV infection.

Funding National Key R&D Program of China.

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Lancet 2020; 395: 507–13

Published Online January 29, 2020 https://doi.org/10.1016/S0140-6736(20)30211-7

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Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study

Xiaobo Yang*, Yuan Yu*, Jiqian Xu*, Huaqing Shu*, Jia'an Xia*, Hong Liu*, Yongran Wu, Lu Zhang, Zhui Yu, Minghao Fang, Ting Yu, Yaxin Wang, Shangwen Pan, Xiaojing Zou, Shiying Yuan, You Shang

Summary

Background An ongoing outbreak of pneumonia associated with the severe acute respiratory coronavirus 2 (SARS-CoV-2) started in December, 2019, in Wuhan, China. Information about critically ill patients with SARS-CoV-2 infection is scarce. We aimed to describe the clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia.

Methods In this single-centered, retrospective, observational study, we enrolled 52 critically ill adult patients with SARS-CoV-2 pneumonia who were admitted to the intensive care unit (ICU) of Wuhan Jin Yin-tan hospital (Wuhan, China) between late December, 2019, and Jan 26, 2020. Demographic data, symptoms, laboratory values, comorbidities, treatments, and clinical outcomes were all collected. Data were compared between survivors and non-survivors. The primary outcome was 28-day mortality, as of Feb 9, 2020. Secondary outcomes included incidence of SARS-CoV-2-related acute respiratory distress syndrome (ARDS) and the proportion of patients requiring mechanical ventilation.

Findings Of 710 patients with SARS-CoV-2 pneumonia, 52 critically ill adult patients were included. The mean age of the 52 patients was 59·7 (SD 13·3) years, 35 (67%) were men, 21 (40%) had chronic illness, 51 (98%) had fever. 32 (61·5%) patients had died at 28 days, and the median duration from admission to the intensive care unit (ICU) to death was 7 (IQR 3–11) days for non-survivors. Compared with survivors, non-survivors were older (64·6 years [11·2] *vs* 51·9 years [12·9]), more likely to develop ARDS (26 [81%] patients *vs* 9 [45%] patients), and more likely to receive mechanical ventilation (30 [94%] patients *vs* 7 [35%] patients), either invasively or non-invasively. Most patients had organ function damage, including 35 (67%) with ARDS, 15 (29%) with acute kidney injury, 12 (23%) with cardiac injury, 15 (29%) with liver dysfunction, and one (2%) with pneumothorax. 37 (71%) patients required mechanical ventilation. Hospital-acquired infection occurred in seven (13·5%) patients.

Interpretation The mortality of critically ill patients with SARS-CoV-2 pneumonia is considerable. The survival time of the non-survivors is likely to be within 1–2 weeks after ICU admission. Older patients (>65 years) with comorbidities and ARDS are at increased risk of death. The severity of SARS-CoV-2 pneumonia poses great strain on critical care resources in hospitals, especially if they are not adequately staffed or resourced.

Funding None.

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Lancet Respir Med 2020

Published Online February 21, 2020 https://doi.org/10.1016/S2213-2600(20)30079-5

This online publication has been corrected. The corrected version first appeared at thelancet.com/respiratory on February 28, 2020

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Radiological findings from 81 patients with COVID-19 pneumonia in Wuhan, China: a descriptive study

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Summary

Background A cluster of patients with coronavirus disease 2019 (COVID-19) pneumonia caused by infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) were successively reported in Wuhan, China. We aimed to describe the CT findings across different timepoints throughout the disease course.

Methods Patients with COVID-19 pneumonia (confirmed by next-generation sequencing or RT-PCR) who were admitted to one of two hospitals in Wuhan and who underwent serial chest CT scans were retrospectively enrolled. Patients were grouped on the basis of the interval between symptom onset and the first CT scan: group 1 (subclinical patients; scans done before symptom onset), group 2 (scans done ≤1 week after symptom onset), group 3 (>1 week to 2 weeks), and group 4 (>2 weeks to 3 weeks). Imaging features and their distribution were analysed and compared across the four groups.

Findings 81 patients admitted to hospital between Dec 20, 2019, and Jan 23, 2020, were retrospectively enrolled. The cohort included 42 (52%) men and 39 (48%) women, and the mean age was 49·5 years (SD 11·0). The mean number of involved lung segments was 10·5 (SD 6·4) overall, 2·8 (3·3) in group 1, 11·1 (5·4) in group 2, 13·0 (5·7) in group 3, and 12·1 (5·9) in group 4. The predominant pattern of abnormality observed was bilateral (64 [79%] patients), peripheral (44 [54%]), ill-defined (66 [81%]), and ground-glass opacification (53 [65%]), mainly involving the right lower lobes (225 [27%] of 849 affected segments). In group 1 (n=15), the predominant pattern was unilateral (nine [60%]) and multifocal (eight [53%]) ground-glass opacities (14 [93%]). Lesions quickly evolved to bilateral (19 [90%]), diffuse (11 [52%]) ground-glass opacity predominance (17 [81%]) in group 2 (n=21). Thereafter, the prevalence of ground-glass opacities continued to decrease (17 [57%] of 30 patients in group 3, and five [33%] of 15 in group 4), and consolidation and mixed patterns became more frequent (12 [40%] in group 3, eight [53%] in group 4).

Interpretation COVID-19 pneumonia manifests with chest CT imaging abnormalities, even in asymptomatic patients, with rapid evolution from focal unilateral to diffuse bilateral ground-glass opacities that progressed to or co-existed with consolidations within 1–3 weeks. Combining assessment of imaging features with clinical and laboratory findings could facilitate early diagnosis of COVID-19 pneumonia.

Funding None.

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Lancet Infect Dis 2020

Published Online February 24, 2020 https://doi.org/10.1016/S1473-3099(20)30086-4

See Online/Comment https://doi.org/10.1016/S1473-3099(20)30134-1

For the Chinese translation of the abstract see Online for appendix 1

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Tabela 2. Totalidade de sinais e sintomas da COVID-19

Totalidade de sinais e sintomas	Chen et al., 2020 (n=99)	WHO, 2020 (n=55924)	Yang et al., 2020 (n=52)	Shi et al., 2020 (n=81)
Febre	83%	87,9%	98%	73%
Calafrios		11,4%		
Tosse seca	82%	67,7%	77%	59%
Dispneia	31%	18,6%	63,5%	não relatado
Fadiga / Fraqueza		38,1%		9%
Mal estar			35%	
Tontura				2%
Produção de catarro		33,4%		
Mialgia ou artralgia	11%	14,8%	11,5%	
Confusão mental	9%			
Dor de cabeça	8%	13,6%		6%
Dor de garganta	5%	13,9%		
Rinorreia	4%		6%	
Congestão nasal		4,8%		
Hemoptise		0,9%		
Congestão conjuntival		0,8%		
Dor torácica	2%		2%	
Diarreia	2%	3,7%		4%
Náusea e vômito	1%	5,0%		5%
Insuficiência respiratória (aguda) / SDRA	aguda (8%) / 17% (SDRA)	aguda (6,1%)	71% / 67% (SDRA)	não relatado
Pneumonia (maior risco em idosos e portadores de doenças crônicas)	não relatado	grave (13,8%)	grave (100%)	grave (100%)
	bilateral (75%)		não relatado	bilateral (79%)
				periférica (54%)
				difusa (44%)
				lobo inf. D (27%)
Opacidade em vidro fosco	14%			65%
Margens mal definidas				81%
Espessamento septal				35%
Espessamento pleural				32%
Broncograma aéreo				47%
Pneumotórax	1%		2%	
Insuficiência de múltiplos órgãos / sepse	IRA (3%) / choque séptico (4%)	6,1%	IRA (29%), IC (23%), IH (29%)	não relatado

Obs.: 'não relatado' se refere à inquestionável existência do sinal/sintoma, embora não tenha sido quantificado e computado.

MZT 02.07.20

Tabela 3. Totalidade sintomática geral da COVID-19

Sinais e sintomas na linguagem comum	**Sinais e sintomas na linguagem repertorial** (rubricas homeopáticas repertoriais)
Febre + tosse seca (início do quadro em geral)	TOSSE – SECA - Febre, durante
Dispneia	RESPIRAÇÃO – DIFICIL
Mialgia + Artralgia	GENERALIDADES – DOR - Músculos, dos GENERALIDADES – DOR - Articulações, das
Insuficiência respiratória (aguda) / Síndrome do desconforto respiratório agudo (SDRA)	RESPIRAÇÃO – IMPEDIDA, obstruída RESPIRAÇÃO – PARADA, interrompida RESPIRAÇÃO – ANSIOSA
Pneumonia: em idosos, bilateral, periférica (pleuropneumonia), difusa e em lobo inferior D Alterações radiológicas: opacidade em vidro fosco (espessamento intersticial ou colapso alveolar); espessamento septal e pleural (infiltração ou fibrose)	PEITO – INFLAMAÇÃO, Pulmões PEITO – INFLAMAÇÃO, Pulmões, velhos PEITO – INFLAMAÇÃO, Pulmões, direito PEITO – INFLAMAÇÃO, Pulmões, direito, lobo inferior PEITO – INFLAMAÇÃO, Pulmões, pleuropneumonia PEITO – INFLAMAÇÃO, Pleura
Insuficiência de múltiplos órgãos / sepse	RINS – SUPRESSÃO da urina (anúria) PEITO – INSUFICIÊNCIA CARDÍACA GENERALIDADES - SEPTICEMIA
Anosmia	NARIZ E OLFATO – OLFATO, falta, perda
Tempo frio e seco agrava (estações do outono e da primavera)	GENERALIDADES – ESTAÇÕES, no outono, agr. GENERALIDADES – ESTAÇÕES, na primavera, agr. GENERALIDADES – TEMPO, frio e seco, agr.
Medicamentos homeopáticos utilizados em epidemias no passado	GENERALIDADES - INFLUENZA

Tabela 4. Repertorização da totalidade sintomática geral da COVID-19

Totalidade sintomática geral da COVID-19	Resultado da repertorização dos sintomas	
1. Tosse – Seca - Febre, durante 2. Nariz e Olfato – Olfato, falta, perda 3. Respiração – Difícil 4. Respiração – Impedida, obstruída 5. Respiração – Parada, interrompida 6. Respiração – Ansiosa 7. Peito – Inflamação, Pulmões 8. Peito – Inflamação, Pulmões, velhos 9. Peito – Inflamação, Pulmões, direito 10. Peito – Inflamação, Pulmões, direito, lobo inf. 11. Peito – Inflamação, Pulmões, pleuropneumonia 12. Peito – Inflamação, Pleura 13. Peito – Insuficiência Cardíaca 14. Rins – Supressão da urina (anúria) 15. Generalidades – Dor - Músculos, dos 16. Generalidades – Dor - Articulações, das 17. Generalidades - Septicemia 18. Generalidades – Estações, no outono, agr. 19. Generalidades – Estações, na primavera, agr. 20. Generalidades – Tempo, frio e seco, agr. 21. Generalidades - Influenza	**Medicamentos**	**Cobertura dos sintomas**
	Bryonia alba	18/21
	Phosphorus	16/21
	Calcarea carbonica	16/21
	Rhus toxicodendron	15/21
	Atropa belladonna	15/21
	Arsenicum album	14/21
	Lachesis muta	14/21
	Pulsatilla nigricans	14/21
	Mercurius solubilis	14/26
	Veratrum album	14/26
	Sulphur	13/21
	Lycopodium clavatum	13/21
	Nux vomica	13/1
	Aconitum napellus	12/21
	Kali carbonicum	12/21
	Arnica montana	12/21
	Hepar sulphur	12/21
	Antimonium tartaricum	12/21

Tabela 5. Totalidade sintomática para prevenção ou doença leve a moderada

Sinais e sintomas na linguagem comum	**Sinais e sintomas na linguagem repertorial** (rubricas homeopáticas repertoriais)
Febre + tosse seca (início do quadro em geral)	TOSSE – SECA - Febre, durante
Dispneia	RESPIRAÇÃO – DIFICIL
Mialgia + Artralgia	GENERALIDADES – DOR - Músculos, dos GENERALIDADES – DOR - Articulações, das
Pneumonia em idosos	PEITO – INFLAMAÇÃO, Pulmões PEITO – INFLAMAÇÃO, Pulmões, velhos
Anosmia	NARIZ E OLFATO – OLFATO, falta, perda
Tempo frio e seco agrava (estações do outono e da primavera)	GENERALIDADES – TEMPO, frio e seco, agr.
Medicamentos homeopáticos utilizados em epidemias no passado	GENERALIDADES – INFLUENZA

Tabela 6. Repertorização da totalidade sintomática para prevenção ou doença leve a moderada

Totalidade sintomática para prevenção ou doença leve a moderada	**Resultado da repertorização dos sintomas**	
1. Tosse – Seca - Febre, durante 2. Nariz e Olfato – Olfato, falta, perda 3. Respiração – Difícil 4. Peito – Inflamação, Pulmões 5. Peito – Inflamação, Pulmões, velhos 6. Generalidades – Dor - Músculos, dos 7. Generalidades – Dor - Articulações, das 8. Generalidades – Estações, no outono, agr. 9. Generalidades – Estações, na primavera, agr. 10. Generalidades – Tempo, frio e seco, agr. 11. Generalidades – Influenza	**Medicamentos**	**Cobertura dos sintomas**
	Bryonia alba	9/11
	Rhus toxicodendron	8/11
	Nux vomica	7/11
	Pulsatilla nigricans	7/11
	Arsenicum album	7/11
	Causticum	7/11
	Lycopodium clavatum	7/11
	Atropa belladonna	7/11
	Phosphorus	6/11
	Aconitum napellus	6/11

Tabela 7. Totalidade sintomática para doença grave

Sinais e sintomas na linguagem comum	**Sinais e sintomas na linguagem repertorial** (rubricas homeopáticas repertoriais)
Febre + tosse seca (início do quadro em geral)	TOSSE – SECA - Febre, durante
Dispneia	RESPIRAÇÃO – DIFICIL
Mialgia	GENERALIDADES – DOR - Músculos, dos
Insuficiência respiratória (aguda) / Síndrome do desconforto respiratório agudo (SDRA)	RESPIRAÇÃO – IMPEDIDA, obstruída RESPIRAÇÃO – PARADA, interrompida RESPIRAÇÃO – ANSIOSA
Pneumonia: em idosos e bilateral	PEITO – INFLAMAÇÃO, Pulmões PEITO – INFLAMAÇÃO, Pulmões, velhos
Tempo frio e seco agrava	GENERALIDADES – TEMPO, frio e seco, agr.

Tabela 8. Repertorização da totalidade sintomática para doença grave

Totalidade sintomática para doença grave	**Resultado da repertorização dos sintomas**	
1. Tosse – Seca - Febre, durante 2. Respiração – Difícil 3. Respiração – Impedida, obstruída 4. Respiração – Parada, interrompida 5. Respiração – Ansiosa 6. Peito – Inflamação, Pulmões 7. Peito – Inflamação, Pulmões, velhos 8. Generalidades – Dor - Músculos, dos 9. Generalidades – Tempo, frio e seco, agr.	**Medicamentos**	**Cobertura dos sintomas**
	Bryonia alba	9/9
	Arsenicum album	8/9
	Opium	8/9
	Nux vomica	8/9
	Atropa belladonna	8/9
	Aconitum napellus	7/9
	Phosphorus	7/9
	Lachesis muta	7/9

Tabela 9. Totalidade sintomática para o estado crítico

Sinais e sintomas na linguagem comum	Sinais e sintomas na linguagem repertorial (rubricas homeopáticas repertoriais)
Insuficiência respiratória aguda	RESPIRAÇÃO – PARADA, interrompida
Pneumonia: em idosos, bilateral, periférica (pleuropneumonia), difusa e em lobo inferior D Alterações radiológicas: opacidade em vidro fosco (espessamento intersticial ou colapso alveolar); espessamento septal e pleural (infiltração ou fibrose)	PEITO – INFLAMAÇÃO, Pulmões PEITO – INFLAMAÇÃO, Pulmões, velhos PEITO – INFLAMAÇÃO, Pulmões, direito, lobo inferior PEITO – INFLAMAÇÃO, Pulmões, pleuropneumonia PEITO – INFLAMAÇÃO, Pleura
Insuficiência de múltiplos órgãos / sepse	RINS – SUPRESSÃO da urina (anúria) PEITO – INSUFICIÊNCIA CARDÍACA GENERALIDADES - SEPTICEMIA

Tabela 10. Repertorização da totalidade sintomática para o estado crítico

Totalidade sintomática para o estado crítico	Resultado da repertorização dos sintomas	
1. Respiração – Parada, interrompida 2. Peito – Inflamação, Pulmões 3. Peito – Inflamação, Pulmões, velhos 4. Peito – Inflamação, Pulmões, direito 5. Peito – Inflamação, Pulmões, direito, lobo inferior 6. Peito – Inflamação, Pulmões, pleuropneumonia 7. Peito – Inflamação, Pleura 8. Peito – Insuficiência Cardíaca 9. Rins – Supressão da urina (anúria) 10. Generalidades - Septicemia	**Medicamentos**	**Cobertura dos sintomas**
	Phosphorus	9/10
	Bryonia alba	7/10
	Mercurius solubilis	7/10
	Calcara carbonica	7/10
	Kali carbonicum	7/10
	Iodum	7/10
	Sulphur	6/10
	Arsenicum album	6/10
	Carbo vegetabilis	6/10
	Lachesis muta	6/10
	Lycopodium clavatum	5/10

PROTOCOLO DE PESQUISA CLÍNICA PARA AVALIAR A EFICÁCIA E A SEGURANÇA DE MEDICAMENTO HOMEOPÁTICO INDIVIDUALIZADO NO TRATAMENTO E NA PREVENÇÃO DA EPIDEMIA DE COVID-19

Pesquisador responsável: Prof. Dr. Marcus Zulian Teixeira

Coordenador Científico do Departamento Científico de Homeopatia
da Associação Paulista de Medicina (APM)

APOIO:
Associação Paulista de Homeopatia (APH)
Associação Médica Homeopática Brasileira (AMHB)

Março/2020

CLINICAL RESEARCH PROTOCOL TO EVALUATE THE EFFECTIVENESS AND SAFETY OF INDIVIDUALIZED HOMEOPATHIC MEDICINE IN THE TREATMENT AND PREVENTION OF THE COVID-19 EPIDEMIC

Researcher in charge: Prof. Dr. Marcus Zulian Teixeira

Scientific Coordinator of the Scientific Department of Homeopathy at
São Paulo Medical Association (Associação Paulista de Medicina)

SUPPORT:
São Paulo Homeopathic Association (APH)
Brazilian Homeopathic Medical Association (AMHB)

March 2020

MZT 02.07.20

Epidemiologia Clínica Homeopática em Epidemias:

tipos de estudos epidemiológicos em epidemias (gênio epidêmico)

"Mas para que fazer pesquisa científica homeopática nas epidemias (Covid-19)??!!"

"Eu tenho certeza de que a homeopatia funciona nas epidemias e temos que aplicar logo para toda a população, pois os pacientes não podem esperar!!!"

"Precisamos salvar vidas!!!"

MZT 02.07.20

Estudos Epidemiológicos em Epidemias

Cólera Asiática *(Vibrio cholerae)*

PubMed ("homeopathy" AND "cholera"): 9 estudos

https://pubmed.ncbi.nlm.nih.gov/?term=homeopathy+and+cholera&sort=date&size=50

PubMed ("homeopathy" AND "acute childhood diarrhea"): 7 estudos

https://pubmed.ncbi.nlm.nih.gov/?term=homeopathy+and+acute+childhood+diarrhea&sort=date&size=50

Pediatr Infect Dis J, 2003;22:229–34
Copyright © 2003 by Lippincott Williams & Wilkins, Inc.
Vol. 22, No. 3
Printed in U.S.A.

Homeopathy for childhood diarrhea: combined results and metaanalysis from three randomized, controlled clinical trials

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Background. **Previous studies have shown a positive treatment effect of individualized homeopathic treatment for acute childhood diarrhea, but sample sizes were small and results were just at or near the level of statistical significance. Because all three studies followed the same basic study design, the combined data from these three studies were analyzed to obtain greater statistical power.**

Methods. **Three double blind clinical trials of diarrhea in 242 children ages 6 months to 5 years were analyzed as 1 group. Children were randomized to receive either an individualized homeopathic medicine or placebo to be taken as a single dose after each unformed stool for 5 days. Parents recorded daily stools on diary cards, and health workers made home visits daily to monitor children. The duration of diarrhea was defined as the time until there were less than 3 unformed stools per day for 2 consecutive days. A metaanalysis of the effect-size difference of the three studies was also conducted.**

Results. **Combined analysis shows a duration of diarrhea of 3.3 days in the homeopathy group compared with 4.1 in the placebo group (P = 0.008). The metaanalysis shows a consistent effect-size difference of ~0.66 day (P = 0.008).**

Conclusions. **The results from these studies confirm that individualized homeopathic treatment decreases the duration of acute childhood diarrhea and suggest that larger sample sizes be used in future homeopathic research to ensure adequate statistical power. Homeopathy should be considered for use as an adjunct to oral rehydration for this illness.**

INTRODUCTION

Worldwide, homeopathy is one of the most popular of complementary and alternative therapies. Nearly 40% of physicians in England refer for homeopathic treatment and >60% of the French public use homeopathy.[1, 2] Although less than in Europe, the use of homeopathy in the United States has increased 5-fold since 1990, most of it in the over-the-counter self-treatment market.[3, 4] Based on the principle of similars, or "like cures like," homeopathy postulates that small doses of a substance that can cause symptoms in a healthy person can be used to cure similar symptoms of disease in someone who is ill.

In addition to being popular, homeopathy is one of the most controversial of the complementary and alternative therapies. This is largely because of the high dilutions of the medicines used, often beyond Avogadro's number (10^{-23} M).[2] A tenet in homeopathy is that drugs retain selective activity when they are diluted if they are applied according to specific homeopathic selection principles.[5] The use of these dilutions has led some to reject homeopathy altogether without examining the clinical evidence of its effects.[6] Homeopathic remedies are generic and therefore inexpensive, available in bottles of 100 tablets for as little as $6 to $8 in many health food stores in the US.

THE JOURNAL OF ALTERNATIVE AND COMPLEMENTARY MEDICINE
Volume 12, Number 8, 2006, pp. 723–732
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Homeopathic Combination Remedy in the Treatment of Acute Childhood Diarrhea in Honduras

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niversidade de Sao Paulo – USP Sistema Integrado de Bibliotecas – SIBi from www.liebertpub.com at 06/27/20. For personal use only.

ABSTRACT

Background: Despite the widespread availability of oral rehydration therapy, diarrheal illness remains a major cause of morbidity and mortality around the world. Previous studies have shown individualized homeopathic therapy to be effective in treating childhood diarrhea, but this approach requires specialized training.

Objective: A homeopathic combination medicine, if effective, could be used by health personnel on a widespread basis.

Methods: A double-blind randomized controlled trial was conducted in Honduras to evaluate the effectiveness of a homeopathic combination therapy to treat acute diarrhea in children. A total of 292 children with acute diarrhea was recruited; 145 were randomized to the experimental group and 147 to the placebo group. Tablets containing a combined preparation of the five most common single homeopathic remedies used to treat diarrhea or placebo were administered by a parent after each unformed stool. Children were followed up daily for 7 days or until symptoms resolved, whichever occurred first. Time until resolution of symptoms, daily rate of unformed stools, and total number of unformed stools were compared between the two groups.

Results: There was no significant difference in the likelihood of resolution of diarrheal symptoms between the treatment and placebo groups (hazard ratio = 1.02, 95% confidence interval: 0.79–1.32), with a median time until resolution of 3 days for both groups. Children in the treatment group had an average of 2.6 unformed stools per day compared to 2.8 among those in the placebo group; this difference was not significant ($p = 0.43$). The median number of unformed stools was 7 among children in the treatment group and 8 among those in the placebo group ($p = 0.41$).

Discussion: The homeopathic combination therapy tested in this study did not significantly reduce the duration or severity of acute diarrhea in Honduran children. Further study is needed to develop affordable and effective methods of using homeopathy to reduce the global burden of childhood diarrhea.

Arsenicum album, Calcarea carbonica, Chamomilla, Podophyllum and Sulphur

Estudos Epidemiológicos em Epidemias

Dengue

PubMed (“homeopathy” AND “dengue”): 5 estudos

https://pubmed.ncbi.nlm.nih.gov/?term=homeopathy%20and%20dengue&sort=date&size=50&pos=5

Portal Regional da BVS (“homeopathy” AND “dengue”): 22 estudos

https://pesquisa.bvsalud.org/portal/?output=&lang=pt&from=&sort=&format=&count=&fb=&page=1&skfp=&index=tw&q=%28mh%3A%28homeopathy%29%29+AND+%28mh%3A%28dengue%29%29

Journal of Medicine and Life Vol. 11, Issue 1, January-March 2018, **pp.75-82**

Could Homeopathy Become An Alternative Therapy In Dengue Fever? An example Of 10 Case Studies

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Received: December 21st, 2017 – Accepted: March 22nd, 2018

Abstract

Background: Dengue fever is one of the most rampant epidemics in India of late and any therapy that may help limit the sickness and hospital admissions is worth considering. In India complementary and alternative medicine physicians are medically trained and hence have a role to play in delivery of public health.

Case Series: We present a retrospective case series of 10 Indian patients who were diagnosed with dengue fever and treated exclusively with homeopathic remedies at Bangalore, India.

This case series demonstrates with evidence of laboratory reports that even when the platelets dropped considerably there was good result without resorting to any other means.

Conclusions: A need for further, larger studies is indicated by this evidence, to precisely define the role of homeopathy in treating dengue fever. This study also emphasises the importance of individualised treatment during an epidemic for favourable results with homeopathy.

Key words: dengue fever, homeopathy, individual therapy

Abbreviations: DF: dengue fever, NS1: non-structural protein 1 antigen, IgG: immunoglobulin G, IgM: immunoglobulin M, +ve: positive, -ve: negative, WBC: white blood cells, RBC: red blood cells, ESR: erythrocyte sedimentation rate

Table 3. Case 3: 28 year old female patient on treatment for bronchial asthma and hypothyroidism chronically

Date	Blood test results	Signs and symptoms	Homeopathic Remedy
14/09/2016	Hb: 13.1 g% WBC: 4,100 cells/cu mm N: 69.4; L: 24; E: 6; M: 1; B: 0; ESR: 13 mm/hour RBC: 4.36 million/ cu mm; **Platelets: 62,000/cu mm** **Dengue NS1: +ve** IgG: -ve Ig M: -ve	Severe body ache and tiredness with fever - the family admitted her to a hospital	She was at hospital the first 2 days so did not take homeopathy
15/09/2016	**Platelets: 52,000 cells/cu mm**	Patient was worse than the previous day in general	
16/09/2016	**Platelets: 30,000 cells/cu mm**	She exhibited oral mucosal hemorrhagic spotsShe could only drink lemonade and nothing else	Ptelea 200C
17/09/2016	**Platelets 25,000 cells/cu mm**	Genrally her condition was better than previous day - she could eat a little but still too weak	No change
18/09/2016	**Platelets: 45,000 cells/cu mm**	Patient felt fine and went home from the hospital	No change
19/09/2016	**Platelets: 80,000 cells/cu mm**	Feeling well	Treatment stopped
21/09/2016	Platelets 2,50,000 cells/cu mm		

Effect of Adjuvant Homeopathy with Usual Care in Management of Thrombocytopenia Due to Dengue: A Comparative Cohort Study

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Homeopathy 2019;108:150–157.

Abstract

Background Dengue is an emerging threat to public health. At present, no clear modalities are available for the prevention and management of thrombocytopenia due to dengue. This article reports the clinical outcomes of integrative homeopathic care in a hospital setting during a severe outbreak of dengue in New Delhi, India, during the period September to December 2015.

Methods Based on preference, 138 patients received a homeopathic medicine along with usual care (H+UC), and 145 patients received usual care (UC) alone. Assessment of thrombocytopenia (platelet count $< 100{,}000/mm^3$) was the main outcome measure. Kaplan–Meier analysis enabled comparison of the time taken to reach a platelet count of $100{,}000/mm^3$.

Results There was a statistically significantly greater rise in platelet count on day 1 of follow-up in the H+UC group compared with UC alone (mean difference = 12,337; 95% confidence interval [CI], 5,421 to 19,252; $p = 0.001$). This trend persisted until day 5 (mean difference = 14,809; 95% CI, 1,615 to 28,004; $p = 0.02$). The time taken to reach a platelet count of $100{,}000/mm^3$ was nearly 2 days earlier in the H+UC group compared with UC alone (H+UC: 3.44 days ± standard error of the mean [SEM] 0.18; 95% CI, 3.08 to 3.80; UC: 5.28 days ± SEM 0.29; 95% CI, 4.71 to 5.86; $p < 0.001$).

Conclusion These results suggest a positive role of adjuvant homeopathy in thrombocytopenia due to dengue. Randomized controlled trials may be conducted to obtain more insight into the comparative effectiveness of this integrative approach.

Keywords
- dengue
- thrombocytopenia
- homeopathy
- *Crotalus horridus*

Homeopathy (2007) 96, 22–26
© 2006 The Faculty of Homeopathy
doi:10.1016/j.homp.2006.10.004, available online at http://www.sciencedirect.com

ORIGINAL PAPER

The use of homeopathic combination remedy for dengue fever symptoms: a pilot RCT in Honduras

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A double-blind, placebo-controlled randomized trial of a homeopathic combination medication for dengue fever was carried out in municipal health clinics in Honduras. Sixty patients who met the case definition of dengue (fever plus two ancillary symptoms) were randomized to receive the homeopathic medication or placebo for 1 week, along with standard conventional analgesic treatment for dengue. The results showed no difference in outcomes between the two groups, including the number of days of fever and pain as well as analgesic use and complication rates. Only three subjects had laboratory confirmed dengue. An interesting sinusoidal curve in reported pain scores was seen in the verum group that might suggest a homeopathic aggravation or a proving. The small sample size makes conclusions difficult, but the results of this study do not suggest that this combination homeopathic remedy is effective for the symptoms that are characteristic of dengue fever. *Homeopathy* (2007) **96,** 22–26.

Keywords: homeopathy; dengue fever; influenza; combination remedies

Aconitum, Belladonna, Bryonia, Eupatorium perfoliatum, Gelsemium e Rhus toxicodendron

Cad. Saúde Colet., Rio de Janeiro

A homeopatia na prevenção e tratamento da dengue: uma revisão

Homeopathic medicines in the treatment and prevention of dengue: a review

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Resumo

Introdução: A dengue é uma importante doença tropical, com um número estimado de 50 a 100 milhões de casos a cada ano. Atualmente, não se dispõe de tratamentos específicos nem de uma vacina para a prevenção da doença, mas os praticantes da medicina homeopática sugerem que formulações homeopáticas sejam úteis como medidas profiláticas e terapêuticas para a dengue. **Objetivo:** Trata-se de uma revisão da literatura que busca identificar e sumarizar os estudos que investigaram medicamentos homeopáticos para o tratamento e a prevenção da dengue. **Métodos:** Realizou-se busca sistemática de publicações científicas nas seguintes bases de dados: PubMed, LILACS, Scopus, ISI Web of Science, The Cochrane Library, PsycInfo e SciELO, utilizando os termos "dengue" e "homeopatia" em inglês, português e espanhol. **Resultados:** Foi identificado um único ensaio clínico aleatorizado controlado duplo-cego, além de dois ensaios de comunidade. Entretanto, tais estudos não evidenciaram a eficácia terapêutica ou profilática das formulações homeopáticas. **Conclusões:** Até o momento, pela falta de ensaios clínicos randomizados, duplo-cegos e controlados bem conduzidos e em número suficiente não há evidências claras da utilidade dos medicamentos homeopáticos para o tratamento e a prevenção da dengue. Assim, as medidas usuais e já bem conhecidas empregadas na prevenção primária da doença não devem ser substituídas por formulações homeopáticas.

Palavras-chave: literatura de revisão como assunto; dengue; homeopatia; prevenção & controle; terapêutica.

Tabela 1. Características dos cinco estudos comparativos (não descritivos) identificados na busca eletrônica e selecionados na revisão sistemática

Autores (ano)/país	Tipo de estudo	Intervenção	Tamanho amostral, faixa etária, condições clínicas	Resultados	Qualidade da evidência/ força de recomendação (GRADE)[20]
Jacobs et al. (2007)/ Honduras[21]	ECR	*Aconite*, *Belladonna*, *Bryonia*, *Eupatorium perfoliatum*, *Gelsemium* e *Rhus toxicodendron*, combinados em uma potência 12 cH (diluição de magnitude 10^{-24}).	Sessenta pacientes com idade ≥12 anos, com sinais e sintomas de dengue, alocados aleatoriamente em dois grupos (tratados com o composto homeopático (n=29) e outro com placebo (n=31)).	Tempo médio de duração de sintomas foi de 2,57 dias para febre e 3,46 dias para a dor no Grupo de Intervenção e 2,26 e 3,29 dias, respectivamente no Grupo Controle.	Moderada/fraca a favor da tecnologia
Saeed-ul-Hassan et al. (2013)/ Paquistão[32]	Ensaio clínico	*Bryonia alba*, *Rhus toxicodendron*, *Gelsemium sempervirens*, *Aconitum napellus*, *Eupatorium perfoliatum*, *Citrullus colocynthis*, *China boliviana*, *Hamamelis*, *Crotilus horridus* e *phosphorus*.	50 voluntários com sintomas de dengue, divididos em 2 grupos (Intervenção *versus* Tratamento de rotina).	Contagem média de plaquetas no sexto dia de acompanhamento foi menor no Grupo Controle, e o número médio de células brancas foi maior no grupo tratado com a combinação de remédios homeopáticos ($p<0,05$).	Baixa/fraca contra a tecnologia
Marino et al. (2003)/ Brasil[26]	Estudo de avaliação	*Eupatorium perfoliatum* 30 cH, em dose única, como preventivo da dengue.	Pouco claro	Redução na incidência da doença, variando de 10 a 81,5%, nos 5 bairros estudados.	Muito baixa/forte contra a tecnologia

Autores (ano)/país	Tipo de estudo	Intervenção	Tamanho amostral, faixa etária, condições clínicas	Resultados	Qualidade da evidência/ força de recomendação (GRADE)[20]
Marino (2008)/ Brasil[27]	Ensaio de comunidade	(1) *Eupatorium perfoliatum* (diluição 30 cH) em doses simples. (2) 20 mil doses de *Eupatorium perfoliatum*, *Phosphorus* e *Crotalus horridus* (diluição 30 cH) em dose simples.	Estudo Ecológico 1.959 pessoas sem dengue vivendo em área de grande incidência da doença	(1) A redução dos sintomas da doença nesta área foi maior que a observada em quatro outras áreas da cidade. (2) Em 524 indivíduos que tomaram o complexo homeopático, 384 (74%) não tiveram manifestações da doença.	Muito baixa/forte contra a tecnologia
Nunes (2008)/ Brasil[28]	Ensaio de comunidade	(1) 156 mil doses de um complexo composto por *Eupatorium perfoliatum*, *Phosphorus* e *Crotalus horridus* (diluição 30 cH em dose simples) para indivíduos sem dengue. (*) (2) 129 indivíduos com sintomas da dengue tratados com o mesmo composto.	Estudo Ecológico	(1) Incidência da doença nos 3 primeiros meses do ano teve uma redução de 93% quando comparada ao mesmo período do ano anterior, enquanto no restante do estado do Rio de Janeiro, houve um aumento de 128%. (2) O tempo médio para recuperação foi menor entre os tratados (os autores não apresentam resultados quantitativos).	Muito baixa/forte contra a tecnologia

ECR: Ensaio Clínico Randomizado; GRADE: *Grading of Recommendations Assessment, Development and Evaluation.*

* Na infecção pelo vírus da dengue o percentual de infecções assintomáticas é estimado entre 29% e 56% (SVS/MS, 2009).

MZT 02.07.20

Autores (ano)/país	Tipo de estudo	Intervenção	Tamanho amostral, faixa etária, condições clínicas	Resultados	Qualidade da evidência/ força d mendação E)[20]
Marino (2008)/ Brasil[27]	Ensaio de comunidade	(1) *Eupatorium perfoliatum* (diluição 30 cH) em doses simples. (2) 20 mil doses de *Eupatorium perfoliatum*, *Phosphorus* e *Crotalus horridus* (diluição 30 cH em dose simpl	Estudo Ecológico 1.959 pessoas sem dengue vivendo em área d	(1) A redução dos sint da doença nest maior	ntra
Nunes (2008)/ Brasil[28]	Ensa comu	dengue. (*) indivíduos com sintomas da dengue tratados com o mesmo composto.		ença nos meses do ano teve a redução de 93% quando comparada ao mesmo período do ano anterior, enquanto no restante do estado do Rio de Janeiro, houve um aumento de 128%. (2) O tempo médio para recuperação foi menor entre os tratados (os autores não apresentam resultados quantitativos).	Muito baixa/forte contra a tecnologia

ECR: Ensaio Clínico Randomizado; GRADE: *Grading of Recommendations Assessment, Development and Evaluation.*

"Nesses ensaios não foram controlados fatores como educação, vigilância da doença e medidas de controle do vetor, sendo as reduções do número de casos ou de sintomas/sinais de dengue, nos períodos subsequentes à intervenção, em parte explicáveis pelo seu comportamento cíclico aliado a efeitos climáticos, bem como à história natural da doença."

* Na infecção pelo vírus da dengue o percentual de infecções assintomáticas é estimado entre 29% e 56% (SVS/MS, 2009).

MZT 02.07.20

Estudos Epidemiológicos em Epidemias

Influenza

PubMed (“homeopathy” AND “randomized trial” AND “influenza”):
15 estudos
https://pubmed.ncbi.nlm.nih.gov/?term=homeopathic+randomized+trial+and+influenza&sort=date&size=50

PubMed (“homeopathy” AND “observational study” AND “influenza”):
4 estudos
https://pubmed.ncbi.nlm.nih.gov/?term=homeopathy+and+observational+study+and+influenza&sort=date&size=50

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[Intervention Review]

Homeopathic Oscillococcinum® for preventing and treating influenza and influenza-like illness

Robert T Mathie[1], Joyce Frye[2], Peter Fisher[3]

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Editorial group: Cochrane Acute Respiratory Infections Group
Publication status and date: Edited (no change to conclusions), published in Issue 9, 2019.

Citation: Mathie RT, Frye J, Fisher P. Homeopathic Oscillococcinum® for preventing and treating influenza and influenza-like illness. *Cochrane Database of Systematic Reviews* 2015, Issue 1. Art. No.: CD001957. DOI: 10.1002/14651858.CD001957.pub6.

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Background

Influenza is a highly infectious viral disease that is particularly common in the winter months. Oscillococcinum® is a patented homeopathic medicine that is made from a 1% solution of wild duck heart and liver extract, which is then serially diluted 200 times with water and alcohol.

Objectives

To determine whether homeopathic Oscillococcinum® is more effective than placebo in the prevention and/or treatment of influenza and influenza-like illness in adults or children.

Search methods

We searched CENTRAL (2014, Issue 8), MEDLINE (1966 to August week 4, 2014), MEDLINE In-Process & Other Non-Indexed Citations (4 September 2014), AMED (2006 to September 2014), Web of Science (1985 to September 2014), LILACS (1985 to September 2014) and EMBASE (1980 to September 2014). We contacted the manufacturers of Oscillococcinum® for information on further trials.

Selection criteria

Randomised, placebo-controlled trials of Oscillococcinum® in the prevention and/or treatment of influenza and influenza-like illness in adults or children.

Data collection and analysis

Three review authors independently extracted data and assessed risk of bias in the eligible trials.

Main results

No new trials were included in this 2014 update. We included six studies: two prophylaxis trials (327 young to middle-aged adults in Russia) and four treatment trials (1196 teenagers and adults in France and Germany). The overall standard of trial reporting was poor and hence many important methodological aspects of the trials had unclear risk of bias. There was no statistically significant difference between the effects of Oscillococcinum® and placebo in the prevention of influenza-like illness: risk ratio (RR) 0.48, 95% confidence interval (CI) 0.17 to 1.34, P value = 0.16. Two treatment trials (judged as 'low quality') reported sufficient information to allow full data extraction: 48 hours after

Authors' conclusions

There is insufficient good evidence to enable robust conclusions to be made about Oscillococcinum® in the prevention or treatment of influenza and influenza-like illness. Our findings do not rule out the possibility that Oscillococcinum® could have a clinically useful treatment effect but, given the low quality of the eligible studies, the evidence is not compelling. There was no evidence of clinically important harms due to Oscillococcinum®.

Therapies
Volume 72, Issue 4, September 2017, Pages 465-474

Pharmacoépidémiologie

Efficacité d'un traitement préventif par Influenzinum en période hivernale contre la survenue d'un syndrome grippal

Effectiveness of preventive treatment by Influenzinum in the winter period against the onset of influenza-like illnesses

Charline Marinone, Mehdi Bastard, Pierre-André Bonnet, Gaétan Gentile, Ludovic Casanova

Show more

https://doi.org/10.1016/j.therap.2016.12.011

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Résumé

Objectif

In vitro l'Influenzinum induirait une modification cellulaire. Nous présentons les résultats de la première étude s'intéressant à l'efficacité clinique de l'Influenzinum en prévention du syndrome grippal.

Méthode

Étude de cohorte rétrospective sur l'hiver 2014–2015. Au décours de l'épidémie grippale, un questionnaire d'autoévaluation a été proposé aux patients majeurs se présentant en consultation. Le critère de jugement principal était la déclaration d'un syndrome grippal. Les patients exposés (traités par Influenzinum) ont été appariés à deux patients non exposés (non traités) par un score de propension. Un modèle logistique conditionnel a exprimé la réduction de risque de syndrome grippal apporté par l'Influenzinum.

Résultats

La cohorte comportait 3514 patients recrutés dans 46 cabinets médicaux. Après appariement, le groupe traité ($n = 2041$) et le groupe non traité ($n = 482$) ne différaient pas sur les variables recueillies. La prise d'Influenzinum était associée à une diminution non significative du risque de survenue d'un syndrome grippal (*odds ratio* ajusté = 0,91 [0,62–1,35], $p = 0,64$).

Conclusion

Un traitement préventif par Influenzinum ne semblait pas efficace pour prévenir un syndrome grippal.

Estudos Epidemiológicos em Epidemias
COVID-19

PubMed (“homeopathy” AND “COVID-19”):
5 estudos
https://pubmed.ncbi.nlm.nih.gov/?term=homeopathic+covid-19&sort=date&size=50

Portal Regional da BVS (“homeopathy” AND “COVID-19”):
7 estudos
https://pesquisa.bvsalud.org/portal/?output=&lang=pt&from=&sort=&format=&count=&fb=&page=1&skfp=&index=tw&q=%28tw%3A%28homeopathy%29%29+AND+%28tw%3A%28COVID-19%29%29

THIEME OPEN ACCESS

Case Series

Homeopathic Clinical Features of 18 Patients in COVID-19 Outbreaks in Hong Kong

Ka Lun Aaron To[1] Yuen Ying Yvonne Fok[1]

[1]Hong Kong Association of Homeopathy, Hong Kong

Homeopathy

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Abstract

Background Hong Kong is geographically located in the province of Guangdong which, after Hubei, has been the region of China second-most affected by the COVID-19 pandemic. Compared to the pathognomonic symptoms of the named disease, homeopathic symptoms are always more helpful for homeopathic prescriptions.

Aim This study reports and summarizes the homeopathic symptoms observed in 18 confirmed/suspected epidemiologically related cases in cluster outbreaks of COVID-19 in Hong Kong in early 2020.

Methods Homeopathic symptoms from this case series were collected from 18 consecutive patients who, in addition to their concurrent conventional treatment or traditional Chinese medicine, actively sought help from homeopathy as an adjunctive measure for symptomatic relief from COVID-19. Cases were categorized according to outbreak clusters, focusing mainly on the homeopathic symptoms. In the analysis, frequency of all homeopathic medicines, common rubrics in all the cases, common rubrics in each of the top-ranked remedies, and differentiating symptoms for each top-ranked remedy were determined.

Results Homeopathic symptoms of 18 cases, each identified as mild and belonging to one of six separate clusters, are reported. Eighteen common symptoms screened out of 79 selected rubrics constituted two sets of homeopathic symptom pictures: *Bryonia alba* ($n = 4$) and *Gelsemium sempervirens* ($n = 12$). Eight and seven differentiating features, respectively, were identified for *Bryonia alba* and *Gelsemium sempervirens*.

Conclusion The common symptoms of 18 mild COVID-19 cases constituted two sets of homeopathic symptom pictures, indicating *Bryonia alba* or *Gelsemium sempervirens*; they were indicated in 4 and 12 cases, respectively, out of the 18 in total.

Keywords
- homeopathy
- COVID-19
- Hong Kong
- China
- clinical features

Introduction

According to the data available on April 8, 2020, the coronavirus disease 2019 (COVID-19) has affected at least 209 countries, with more than 1,350,000 reported cases and 79,000 deaths.[1] The World Health Organization (WHO) officially declared the coronavirus a "pandemic" on March 11, 2020. An epidemic is the unexpectedly high incidence of a disease in a community or region during a given time period; it becomes a pandemic when it affects an even wider geographical area. Health care systems in developed countries—not to mention the developing countries—have been challenged by the overwhelming number of patients.

Up to April 8, 2020, there were more than 81,000 cases and 3,300 deaths in China from the COVID-19 pandemic.[2] Hong Kong is geographically located in Guangdong (formerly Canton), the second-most affected province in China after Hubei. It has become one of the most affected cities in China

received March 31, 2020
accepted after revision April 19, 2020

DOI https://doi.org/10.1055/s-0040-1710545.
ISSN 1475-4916.

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Conclusão: Os sintomas comuns de 18 casos leves de COVID-19 constituíram dois conjuntos de quadros de sintomas homeopáticos, indicando *Bryonia alba* ou *Gelsemium sempervirens;* eles foram indicados em 4 e 12 casos, respectivamente, dos 18 no total.

MZT 02.07.20

in addition to their concurrent conventional or TCM treatment. All except one suspected case (HK6.1) were consulted through telephone calls or video calls. Patients were requested to fill in an electronic patient registration form when they made appointments for suspected COVID-19 symptoms, and the consultation would then be offered for free through video calls. In the case of a patient with fever/respiratory symptoms who walked into the consulting rooms without making an appointment, personal protective equipment based on droplet and contact precaution was provided to the staff. If a case was diagnosed as COVID-19 before they sought help from homeopathy, distant consultation and follow-up were done by video or audio calls during their quarantined period. If a case was suspected to be COVID-19 when they sought help from homeopathy, they were advised to follow the most updated instruction of quarantine and treatment from the Hong Kong government.

The 18 case takings were performed by TKL, a homeopathic practitioner with more than 10 years of experience in homeopathic practice. A standard questionnaire on common homeopathic symptoms was filled in by all diagnosed/suspected COVID-19 patients, with or without the help of a consulting-room assistant, before the consultation with author KLAT. Verbal consent to share anonymized clinical information for academic purposes was obtained from each patient.

Cases are presented according to their outbreak cluster, defined as above. The case presentations focused mainly on the homeopathic symptoms. Full repertorizations, with Synthesis Repertory 2009V last updated in RadarOpus 2.2.12, are presented for each individual case.

Homeopathic medicines were delivered to patients within 24 hours after consultation. Follow-up checkpoints for patients were suggested as 12 hours, 24 hours, 3 days, 7 days, and 14 days after the intake of the first dose of medicine. Patients, however, were encouraged to keep contact with the assistants even at time points other than the above. At each checkpoint, patients were asked to give an overall severity rating of their symptoms and general well-being: 100 was the designated "reference" score for a patient in the 24 hours immediately before the first dose of medicine; 0 was the score when all of the patient's symptoms disappeared and general well-being returned to normal (i.e., 100% improvement of symptoms); 200 was the score when the severity of symptoms and general well-being was twice as bad as before. There was no upper limit of the score, and any percentage score between the above examples was eligible.

In the analysis, frequency of all homeopathic medicines, common symptoms in all the cases, and common rubrics for each of the top-ranked remedies are presented. Differentiating features are also presented.

Besides, differentiating features are also presented, those being defined as rubrics that fulfilled the following criteria:

1. Present in at least 50% of cases for the top-ranked remedy;
2. Present in no more than 2 cases for other top-ranked remedies.

The article was first written in Chinese and translated by author YYYF into English.

Findings

The 18 patients were identified in six separate clusters of COVID-19, each cluster comprising 1, 1, 5, 5, 5 and 1 case or cases, respectively.

Cluster no.1

Case HK1.1

The patient was a 62-year-old woman, with good past health and repeated close contact in a cluster with more than 10 RT-PCR positive cases, diagnosed in February 2020.

She had repeated close contact with the cluster since January 25, 2020, developed bone pain and mild dry cough in early February. The patient's symptoms were categorized as mild, but they gradually worsened without fever for nearly 1 month. They were treated with TCM for 4 weeks; homeopathy was added at the fourth week for persistent symptoms. The patient did not take any conventional medication. An RT-PCR test, carried out once after 4 weeks of TCM and 2 days of homeopathy, was negative. The following homeopathic symptoms were found:

1. Slow onset and progression of symptoms.
2. Feeling irritable from the cough; does not want to talk to anyone. Prefers to be alone.
3. Obvious increase in thirst with desire to drink warm water in large quantity.
4. Generally ameliorated after perspiration.
5. Mainly dry cough, with very occasional greenish sputum.
6. Extremely bad pulsating temple headache and middle chest pain aggravated from coughing.
7. Cough aggravated by talking and lying down, and after waking up in the morning.
8. Cough associated with tickling feeling in the throat, ameliorated by warm drinks.

Bryonia alba 30C was prescribed, four times daily. The patient reported more than 60% improvement in symptoms (i.e., she reported a score of 40) after 24 hours, and 80% improvement on day 3 (score of 20). Repertorization is shown in ►**Fig. 1**.

Cluster no. 2

Case HK2.1

The patient was a 21-year-old man, who was confirmed for COVID-19 infection with RT-PCR 2 days after returning from the United Kingdom in March. The patient was categorized as having mild symptoms. His throat symptoms started 10 days before homeopathic consultation. There had been one day of low-grade fever (day 4) after symptoms started, which quickly improved with antipyretics. The antiviral drugs, Kaletra and Ribavirin, were started at day 5. Imaging did not show definite pneumonia, but the cough was progressively worse. The following homeopathic symptoms were found:

1. Slow onset and progression of symptoms.
2. Fever was generally associated with bone pain.

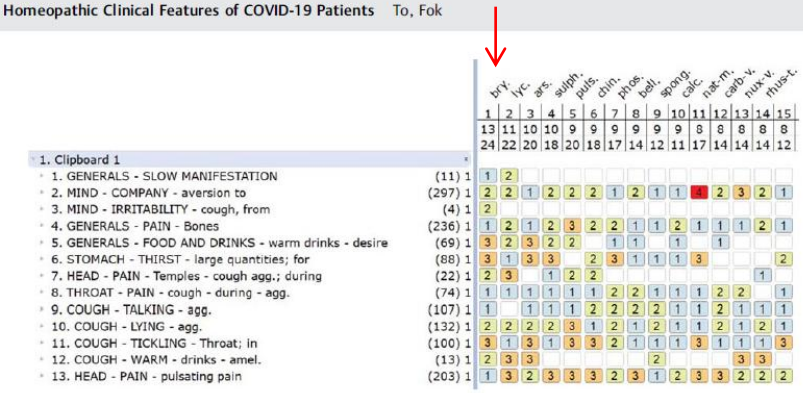


Fig. 1 Repertorization of Case HK1.1.

3. Sudden waking up from sleep every night since the onset of the disease.
4. Obvious increase in thirst, with desire to drink warm water in large quantity.
5. Stitching pain in the throat.
6. Cough was associated with headache, throat pain, and abdominal muscle pain.
7. Headache was aggravated with any motion, even movement of the eyes.
8. Cough was associated with nausea.
9. Cough aggravated during night, especially close to midnight.
10. Cough was associated with tickling feeling in the throat, ameliorated by warm food, warm drink and open air.
11. Rhinitis with loss of smell and taste.
12. Heavily coated tongue (yellowish-white).

Bryonia alba 30C was prescribed, four times daily. The patient reported that, after the first dose before sleep, it was the first night since the onset of disease that he could sleep through the night without a sudden waking up. More than 70% of symptoms improved (score of 30) after 24 hours, and more than 95% improved (score of 5) at day 3. Repertorization is shown in ►**Fig. 2**.

Cluster no. 3

Case HK3.1

The patient was an 18-year-old woman, with good past health. She was suspected to be a COVID-19 case, and serology for the disease was positive when it was available 7 days after adjunctive homeopathic treatment. She was categorized as a mild case.

Mild symptoms started in February 2020, around a week after contact with the index case. Symptoms gradually worsened after 2 weeks. The patient was treated with TCM for around 3 weeks, without much improvement in symptoms, before she sought help from homeopathy. She had subjectively assessed

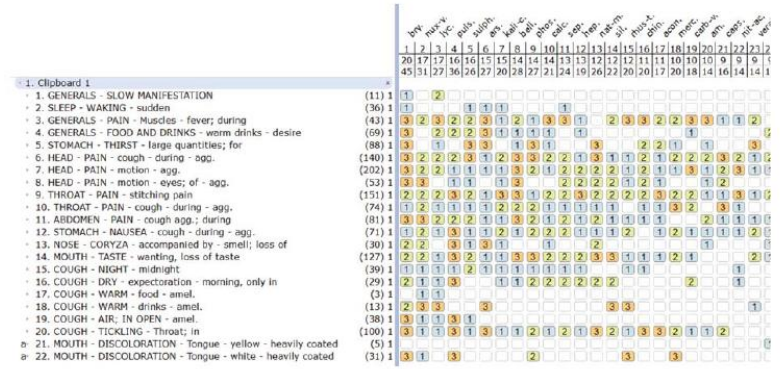


Fig. 2 Repertorization of Case HK2.1.

MZT 02.07.20

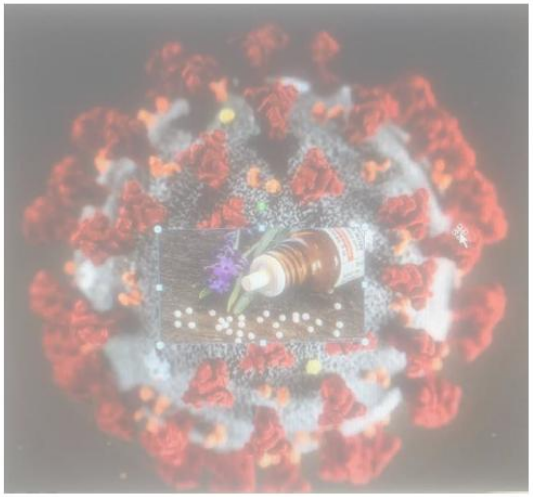
ESTUDO PRELIMINAR DE SINTOMAS E MEDICAMENTOS PREVALENTES DO "GÊNIO EPIDÊMICO" DA PANDEMIA DE COVID-19 NO BRASIL

Comitê Especial de Pesquisa COVID-19 da AMHB
03/04/2020

DOLCE FILHO, Rubens
NECHAR, Rosana Ceribelli
RIBEIRO FILHO, Ariovaldo

RESULTADOS TERAPÊUTICOS DA HOMEOPATIA EM PACIENTES SUSPEITOS OU CONFIRMADOS DE COVID-19 NO BRASIL:

PROTOCOLO PARA ESTUDO OBSERVACIONAL PROSPECTIVO



Flávio Dantas

São Paulo
2020

MZT 02.07.20

Will We Miss the Opportunity Again?

Menachem Oberbaum[1]

[1]The Center for Integrative Complementary Medicine, Shaare Zedek Medical Center, Jerusalem, Israel

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Homeopathy

Abstract

Coronavirus disease 2019 (COVID-19), caused by a new coronavirus, first appeared in late 2019. What initially seemed to be a mild influenza quickly revealed itself as a serious and highly contagious disease, and the planet was soon faced with a significant morbidity and mortality associated with this pathogen. For homeopathy, shunned during its 200 years of existence by conventional medicine, this outbreak is a key opportunity to show potentially the contribution it can make in treating COVID-19 patients. This should be done through performance of impeccably controlled, prospective, randomized clinical trials, with publication of their findings in well-ranked conventional medicine journals. If the homeopathy community fails to take advantage of this rare opportunity, it might wait another century for the next major pandemic.

Keywords
- COVID-19
- homeopathy
- pandemics
- randomized controlled trials

On December 31, 2019, Chinese health authorities reported a cluster of pneumonia cases of unknown etiology in the city of Wuhan in Hubei province. In the days that followed, a possible association was made with Wuhan's Huanan fish market. On January 9, 2020, the Chinese Center for Disease Control and Prevention identified a novel coronavirus (provisionally named 2019-nCoV) as the causative agent of these cases, and confirmed inter-human transmission.[1] On February 11, 2020, the 2019 novel coronavirus was officially named by the World Health Organization (WHO) as an infectious coronavirus disease 2019 (COVID-19).[2] The Coronavirus Study Group of the International Taxonomy Committee of Viruses subsequently classified it as a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).[3]

What initially appeared to be mild flu quickly revealed itself as a very serious and contagious disease. Within a short time, almost the entire planet was faced with a significant morbidity and mortality associated with this disease, and by April 18 the world counted 2,280,624 sick and 158,993 dead.

This outbreak is an opportunity for homeopathy—a single opportunity to prove to the skeptical public that it may have a substantial contribution to make to the treatment of COVID-19 patients. There are three main reasons for this proposition:

1. The WHO estimates COVID-19's transmission rate (R_0) at between 2 and 3,[4] which is a very high risk.[5] The virus is thus very dangerous, not only to the developing world but also to wealthy countries, as has been demonstrated by its outbreak progression to the West. And, sadly, the world reacts more rapidly and more efficiently when rich nations are endangered.
2. COVID-19 is, in many ways, a mysterious, incompletely understood disease. Among the questions still open are its varying clinical picture; the seemingly endless groups and sub-groups of patients; the still unknown possibility of relapse; whether infection bestows immunity and, if so, for how long; and whether, like influenza virus, COVID-19 will mutate through antigenic drift and shift. There is no answer even to the questions of whether it is here to stay, or whether it will disappear as have some other coronavirus diseases.
3. The key reason for homeopathy's chance to prove itself against the virus, however, is the fact that there is currently no known specific conventional pharmacological treatment for the disease, and people, especially old people, are continuing to die. There is, therefore, a golden opportunity for homeopathy to contribute to the fight against this plague.

During its 200 years, homeopathy has more than once shown its efficacy in combating epidemics, from the use of *Belladonna* in an outbreak of scarlet fever in 1799 by its founder Samuel Hahnemann[6] to modern times. There is

received
May 7, 2020
accepted after revision
May 11, 2020

Copyright © The Faculty of Homeopathy DOI https://doi.org/10.1055/s-0040-1713082.
ISSN 1475-4916.

A doença do coronavírus 2019 (COVID-19), causada por um novo coronavírus, apareceu pela primeira vez no final de 2019. [...] Para a homeopatia, evitada durante seus 200 anos de existência pela medicina convencional, esse surto é uma oportunidade fundamental para mostrar potencialmente a contribuição que pode dar no tratamento de pacientes com COVID-19. **Isso deve ser feito através da realização de ensaios clínicos impecavelmente controlados, prospectivos e randomizados, com a publicação de suas descobertas em periódicos de medicina convencional bem classificados.** Se a comunidade homeopática não aproveitar essa rara oportunidade, poderá esperar mais um século pela próxima grande pandemia.

MZT 02.07.20

PROTOCOLO DE PESQUISA CLÍNICA PARA AVALIAR A EFICÁCIA E A SEGURANÇA DE MEDICAMENTO HOMEOPÁTICO INDIVIDUALIZADO NO TRATAMENTO E NA PREVENÇÃO DA EPIDEMIA DE COVID-19

Pesquisador responsável: Prof. Dr. Marcus Zulian Teixeira

Coordenador Científico do Departamento Científico de Homeopatia
da Associação Paulista de Medicina (APM)

APOIO:
Associação Paulista de Homeopatia (APH)
Associação Médica Homeopática Brasileira (AMHB)

Março/2020

CLINICAL RESEARCH PROTOCOL TO EVALUATE THE EFFECTIVENESS AND SAFETY OF INDIVIDUALIZED HOMEOPATHIC MEDICINE IN THE TREATMENT AND PREVENTION OF THE COVID-19 EPIDEMIC

Researcher in charge: Prof. Dr. Marcus Zulian Teixeira

Scientific Coordinator of the Scientific Department of Homeopathy at
São Paulo Medical Association (Associação Paulista de Medicina)

SUPPORT:
São Paulo Homeopathic Association (APH)
Brazilian Homeopathic Medical Association (AMHB)

March 2020

MZT 02.07.20

REV ASSOC MED BRAS 2020; 66(4):405-406

RAPID COMMUNICATION

Clinical research protocol to evaluate the effectiveness and safety of individualized homeopathic medicine in the treatment and prevention of the COVID-19 epidemic

Marcus Zulian Teixeira[1,2]

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2. Coordenador Científico do Departamento Científico de Homeopatia da Associação Paulista de Medicina, São Paulo, SP, Brasil

http://dx.doi.org/10.1590/1806-9282.66.4.405

Employing an integrative approach in the diagnosis and treatment of organic disorders (mental, general, and physical), homeopathy can act preventively in most acute or chronic diseases, moving forward to the process of their installation. To accomplish this intent, homeopathic medicines must stimulate a systemic and homeostatic reaction of the body against the various idiosyncrasies that predispose to illness, being indispensable to apply the principle of curative similarity according to the totality of characteristic symptoms of the diseased individuality (individualized medicine).[1]

In addition to its recognized application in chronic diseases, individualized homeopathy can also act in a resolutive or complementary way in acute cases, including is epidemics. However, to achieve this intent, a specific semiologic and therapeutic methodology cannot be disregarded.

In the case of epidemic diseases, which due to the virulence of their agents causes a common symptomatological picture in most susceptible individuals, individualized homeopathic medicine *(homeopathic medicine of the epidemic genius)* should bear similarity with the set of signs and symptoms of the patients affected by the different stages or phases of each epidemic outbreak. According to Samuel Hahnemann's approach, and per individual involvement, these individualized homeopathic medicines should be prescribed in isolation, in succession, or in alternation, but never as homeopathic complexes (mixtures of medicines in the same formula).[2-4]

After a survey of individualized homeopathic medicine(s) of the epidemic genius for the different stages of a given epidemic, the 'state of the art' of Hahnemannian homeopathic semiology, the application of therapeutic and/or large-scale prophylaxis should be accompanied by properly designed experimental and/or observational studies so that the results can be analyzed according to the premises of modern clinical epidemiology, avoiding systematic errors (biases) and chances of contaminated isolated results.[2-4]

Unfortunately, in recent years, we have observed several homeopathic proposals for the treatment and/or prophylaxis of dengue and influenza epidemics that contradict the homeopathic episteme, suggesting the application of complex homeopathic medicines

(mixtures of homeopathic and/or isopathic medicines, which disregard previous pathogenetic experimentation and individualization according to the symptomatic totality that is characteristic of each stage of the current epidemic) for the entire population of a region, without using structured research protocols to assess the effectiveness and safety of such proposal.[2-4]

The indiscriminate distribution of homeopathic medicines that promise to 'immunize' a collective group in the face of a given epidemic, without any notion of its efficacy, effectiveness, and safety, represents a risk to public health as it can induce the disregard of these people for the hygienic and prophylactic measures proven to be effective since they might feel 'protected' by these medicines.

Criticized by Hahnemann himself in the 19th century, empiricism is more serious today, a time when the scientific method is accessible and can be applied by all. Wrapped in countercultural obscurantism, many homeopathic physicians support their conduct only in their 'personal experience', disregarding the positive advances of contemporary science and rejecting knowledge indispensable to the development of homeopathic science.

On the other hand, in order to improve the homeopathic model in its various areas of activity, physicians and researchers need to adopt an impartial and prejudice-free posture, allowing rational and scientific homeopathy to have space to propose, discuss, and apply its research projects in medical schools and university hospitals, so that it can act in a complementary and adjuvant way in numerous health disorders.

Seeking to contemplate these objectives, in March 2020, we make available to the Brazilian and international homeopathic community the "Protocolo de pesquisa clínica para avaliar a eficácia e a segurança de medicamento homeopático individualizado no tratamento e na prevenção da epidemia de COVID-19",[5] in which we discuss, in a broad way, the various aspects involving the homeopathic treatment of epidemics, including the current epidemic of COVID-19:

- Homeopathic treatment of epidemics: "Epistemological premises of the homeopathic model", "Guidelines for homeopathic treatment in epidemic diseases", and "Evidence of the effectiveness of homeopathy in epidemic diseases";
- Selection of individualized homeopathic medicines of the epidemic genius of COVID-19 for the 3 phases of the current epidemic: "COVID-19 epidemic", "Study of the epidemic genius of the current COVID-19 pandemic", "Homeopathic medicines of the epidemic genius for the prevention or treatment of mild to moderate disease", "Homeopathic medicines of the epidemic genius for the treatment of severe disease" and "Homeopathic medicines of the epidemic genius for the treatment of critical states";
- Ethical and scientific validation of the effectiveness and safety of possible drug hypotheses, so that they are used, *a posteriori*, in the treatment and prevention of the population on a large scale: "Ethical and bioethical aspects of research in human beings" and "Randomized, double-blind, placebo-controlled clinical trial".

At the request of homeopathic researchers from several countries, the protocol has also been translated into English, so that it can be made available and applied by all ("Clinical research protocol to evaluate the effectiveness and safety of individualized homeopathic medicine in the treatment and prevention of the COVID-19 epidemic")[6].

Since the publication of the Portuguese version, we have been seeking an opportunity to apply this protocol to patients hospitalized in wards and ICUs of public and private hospitals, disseminating it to colleagues and researchers from numerous educational and research institutions. However, we are still waiting for positive feedback from researchers who have shown interest in it.

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MZT 02.07.20

MUMBAI

Homeopathy drug untested for efficacy against COVID-19 widely distributed in Mumbai

Jyoti Shelar

MUMBAI, MAY 22, 2020 00:46 IST
UPDATED: MAY 22, 2020 14:25 IST

Corporators freely distribute bottles of Arsenicum Album 30 as a feel-good factor for constituents; experts fret as no data exists on efficacy against COVID-19

A corporator from Borivali, Riddhi Khursange, has distributed 10,000 bottles of Arsenicum Album 30, the homoeopathy medicine that was recommended by Ministry of AYUSH as a prophylactic for COVID-19. Another corporator from Ghatkopar, Pravin Chheda, has bought 25,000 bottles and has distributed over 7,100 in the past four days.

MZT 02.07.20

Agra trials

The State government has set up a new committee to exclusively look at AYUSH remedies. Dr. T.P. Lahane, who is a part of the committee, said a meeting was planned on Thursday evening to discuss various options.

Meanwhile, a trial on 44 COVID-19 patients in Agra has shown that a homoeopathy medicine called Bryonia Alba was more beneficial than Ars Alb. "We have submitted our findings to Central Council of Homoeopathy and are now enrolling more patients for a bigger trial," said Dr. Pradeep Gupta, principal of the Naiminath Homeopathy College and Hospital, who is conducting the trial.

He said 22 patients were given a placebo while 22 others were given homoeopathy medicines, Bryonia Alba, Ars Alb and Gelsemium. "19 patients who had fever, cough and weakness, responded to Bryonia within the first three days, two patients who had respiratory distress were first given Ars Alb, which relieved the breathing discomfort, but they had to be put on Bryonia Alba to relieve their fever and cough. Only one patient who came in with drowsiness was first given Gelsemium, but later put on Bryonia Alba for other symptoms," said Dr. Gupta.

For patients in Agra, Bryonia Alba seems to be the *genus epidemicus*, he said. Dr. Gupta has now written to the Maharashtra government to conduct a similar trial on patients here.

Printable version | Jun 20, 2020 4:29:33 PM |
https://www.thehindu.com/news/cities/mumbai/placebo-effect-untested-homoeopathy-drug-being-distributed-widely/article31645532.ece

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Clinical Trial Details (PDF Generation Date :- Fri, 08 May 2020 15:15:00 GMT)

CTRI Number	CTRI/2020/05/024969 [Registered on: 01/05/2020] - **Trial Registered Prospectively**
Last Modified On	
Post Graduate Thesis	No
Type of Trial	Interventional
Type of Study	Homeopathy
Study Design	Randomized, Parallel Group, Placebo Controlled Trial
Public Title of Study	Homoeopathy as adjuvant in management of Covid-19 infection
Scientific Title of Study	Effect of adjuvant homoeopathy with standard treatment protocol in management of covid-19: a randomised, open label, placebo controlled, parallel group study

Intervention / Comparator Agent

Type	Name	Details
Intervention	Homoeopathic medicine	Homoeopathic medicines will be given to this group patients as an add-on to standard treatmet. Following Individualization medicines will be selected keeping in view pathological aspect of disease. Dose and potency will be according to the frequency, intensity and duration of signs and symptoms. Repetitions will vary from cae to case basis cosidering disease state and vitality of patient. Range of potency from 30, 200, 1M etc will be used.
Comparator Agent	Placebo	Placebo group patients will receive identical placebo

“Portanto, os medicamentos, dos quais dependem a vida e a morte, a saúde e a doença, devem ser distinguidos uns dos outros de maneira precisa e, por isso, **devem ser testados em seu poder e em seus verdadeiros efeitos por meio de experimentos puros e cuidadosos** no organismo sadio, com a finalidade de conhecê-los perfeitamente e evitar qualquer erro em seu emprego terapêutico, pois somente a escolha acertada do medicamento pode restabelecer, de maneira rápida e duradoura, o maior dos bens da Terra: a saúde do corpo e da alma.” (Samuel Hahnemann, *Organon da arte de curar*, § 120)

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“O pesquisador deve duvidar, evitar as ideias fixas e conservar sempre sua liberdade de espírito”.

Claude Bernard

(Introduction a l’étude de la médecine expérimentale, 1865)

Obrigado!!!

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