

# O que eu deveria ter lido mas não tive tempo, sobre ...

## SURTOS

Carlos Magno Castelo Branco Fortaleza

*Professor Adjunto – Departamento de Doenças Tropicais*

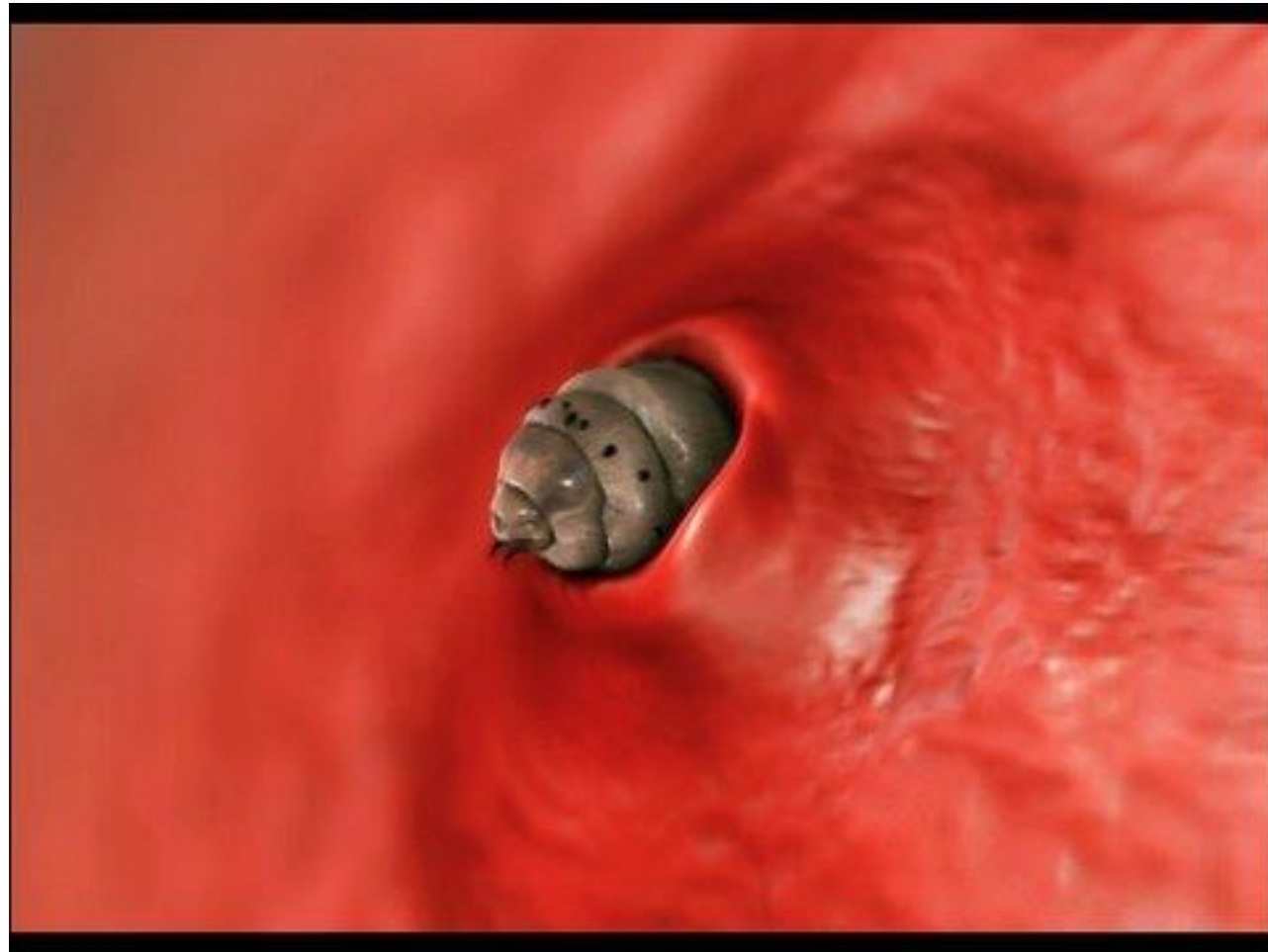
*Presidente – Comissão de Controle de Infecção*

*Relacionada à Assistência em Saúde (CCIRAS)*

*Faculdade de Medicina de Botucatu, UNESP*



**NENHUM CONFLITO DE INTERESSE**



*Parte 1*

# PARASITAS ASSASSINOS

# Nosocomial Transmission and Infection Control

## Aspects of Parasitic and Ectoparasitic Diseases

### Part III. Ectoparasites/Summary and Conclusions

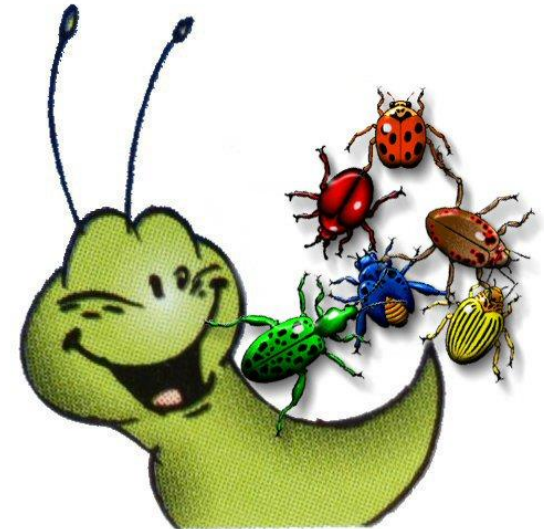
Ludwig A. Lettau, MD, MPH



Pediculose



Escabiose



Míase

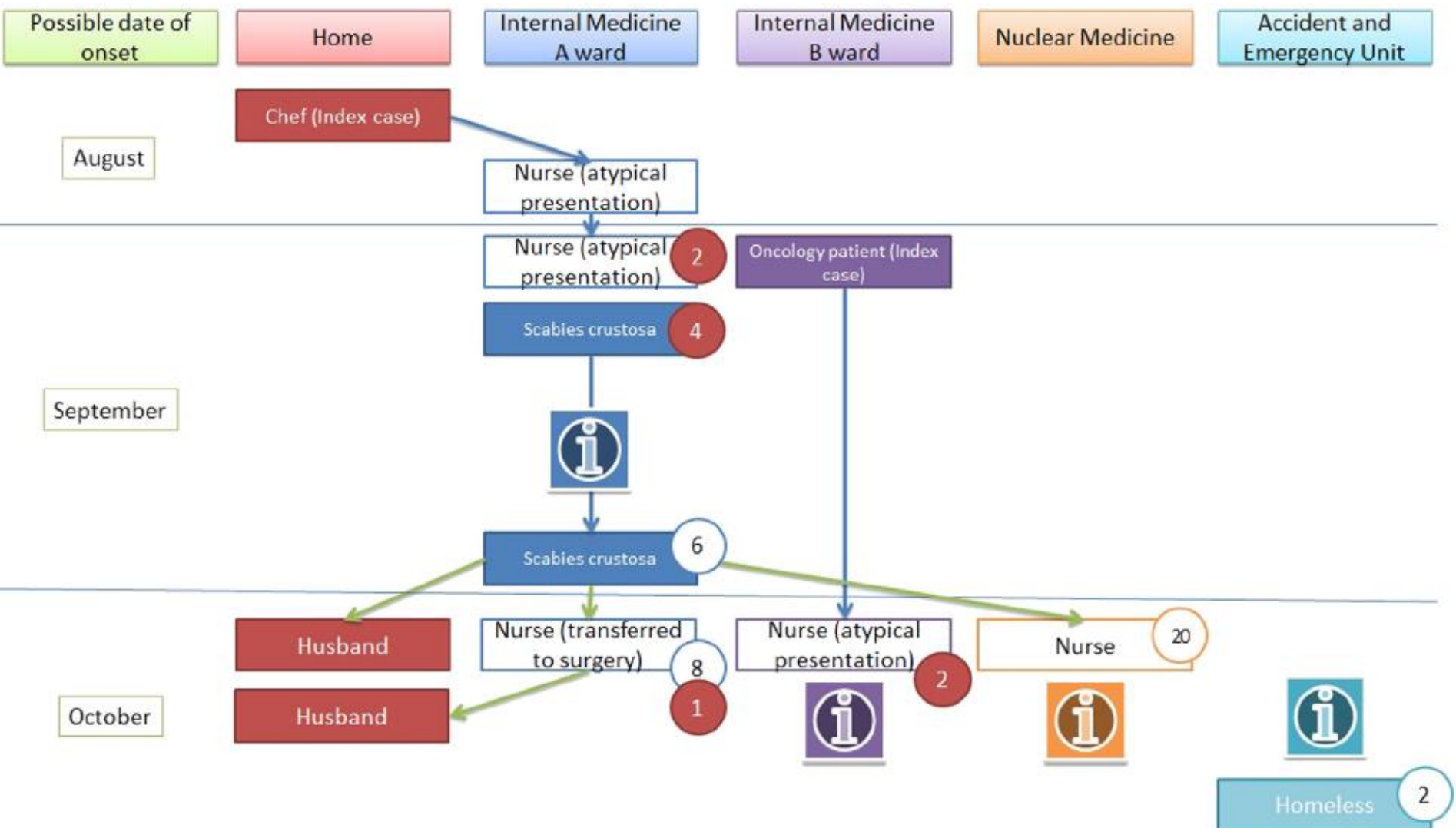


# Control of scabies outbreaks in an Italian hospital: An information-centered management strategy

Matteo Capobussi MD<sup>a,\*</sup>, Giuliana Sabatino MD<sup>b</sup>, Annalisa Donadini MD<sup>c</sup>,  
Carlo A. Tersalvi MD<sup>d</sup>, Silvana Castaldi MD<sup>a,e</sup>

Month of diagnosis	Cases			
	Health workers	Patients	Family members	Suspected
September	2	-	1	3
October	1	2	-	-
November	1	2	1	2
December	1	-	1	1
Total	5	4	3	6

Close contacts receiving prophylaxis		Contacts not receiving prophylaxis	
Health workers	Family members	Health workers	Patients
-	2	45	420
2	2	101	250
26	4	5	230
8	1	57	20
36	9	208	920

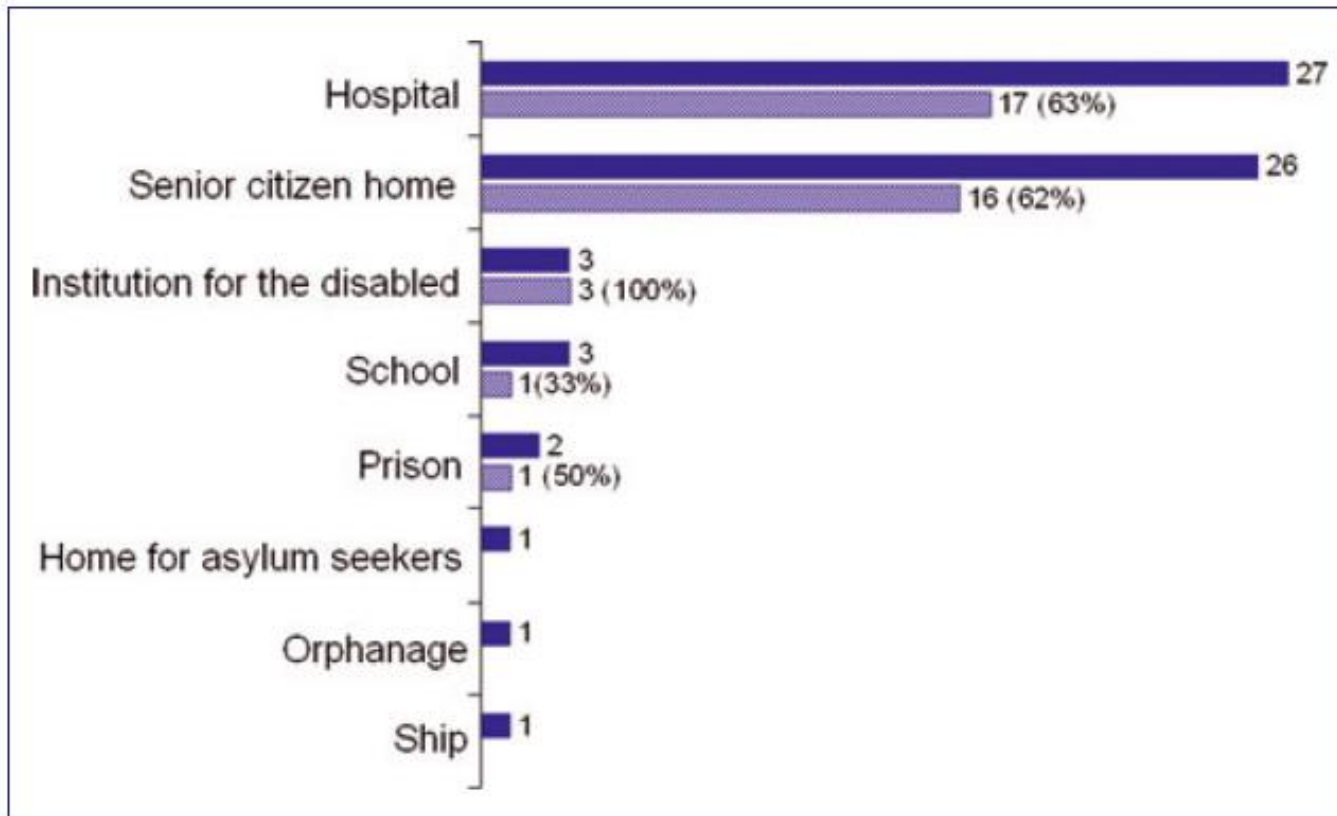


# Control of large institutional scabies outbreaks

Johanna Stoevesandt<sup>1</sup>, Lydia Carlé<sup>1</sup>, Martin Leverkus<sup>1,2</sup>, Henning Hamm<sup>1</sup>

(1) Department of Dermatology, Venereology and Allergology, University Hospital Würzburg, Germany

(2) Department of Dermatology, Venereology and Allergology, University Hospital Mannheim, Germany



Alguns exemplos...

Duração (meses)

Casos

Bannatyne RM [17], 1992	4	Hospital, Canada	77
Jimenez-Lucho VE [18], 1995	12	Hospital, USA	119
Marshall R [19], 1995	2	School, UK	68
Danchaivijitr S [20], 1995	1	Hospital, Thailand	
Corbett EL [21], 1996	16	Hospital (AIDS), USA	
Ancelle T [22], 1997	14	Hospital, USA	49
Buehlmann M [23], 1997		Intensive care unit, Switzerland	19
	2	Senior citizen home, Germany	35
Yamagami K [54], 2011	> 42	Hospital (geriatrics), Japan	148
Ross BG [55], 2011	9	Hospital (neonatology), USA	13

Más condições de higiene, retardo no diagnóstico, não adesão a medidas recomendadas.





Três casos de miíase em pacientes de UTI – perfurações em telas de janelas

# Nosocomial myiasis

*Journal of Hospital Infection* (1997) 37, 1–5

U. Mielke

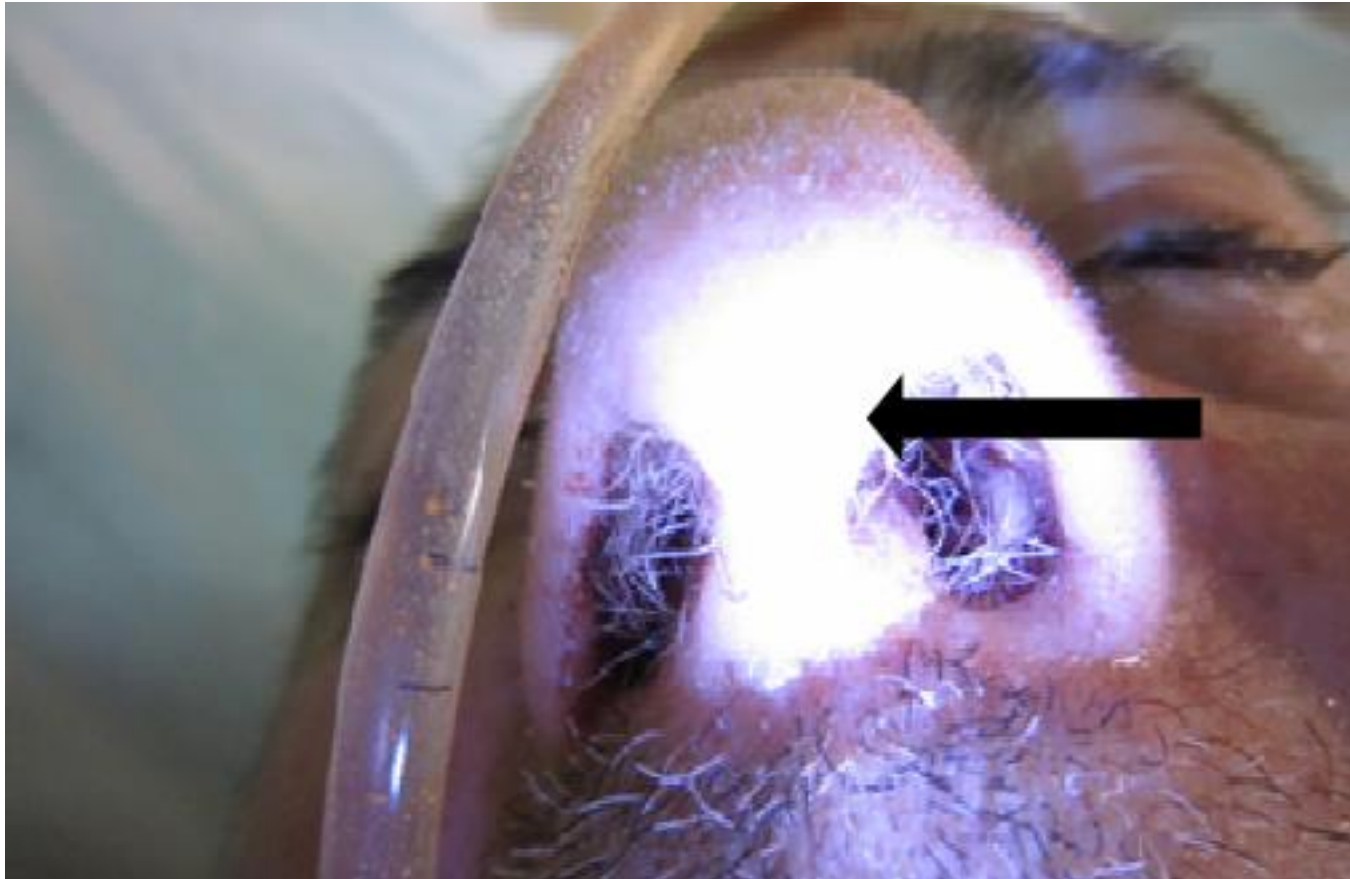
23 casos até 1997

Authors	Year published	Country	Patient data				Fly species	Localization of larvae
			Age	Sex	Diagnosis	General condition*		
Jacobson <i>et al.</i> <sup>4</sup>	1980	USA	73	♀	Cardiac operation	General anaesthesia	<i>Lucilia sericata</i>	Chest wound
Jacobson <i>et al.</i> <sup>4</sup>	1980	USA	67	♂	Cardiac operation	General anaesthesia	<i>Lucilia sericata</i>	Nose
Mielke and Schlote <sup>1</sup>	1980	Germany	66	♂	Foot necrosis due to diabetes mellitus	Normal	<i>Sarcophaga spec.</i>	Foot wound
Mielke and Schlote <sup>1</sup>	1980	Germany	73	♂	Foot necrosis due to diabetes mellitus	Normal	<i>Sarcophaga spec.</i>	Foot wound
Magnarelli and Andredis <sup>7</sup>	1981	USA	8	♂	Encephalopathy	Comatose	<i>Lucilia sericata</i>	Nose
Rawlins and Barnett <sup>12</sup>	1983	Jamaica	65	♀	Stroke	Comatose	<i>Cochliomyia hominivorax</i>	Nasopharynx
Gupta <i>et al.</i> <sup>14</sup>	1983	India	25	♂	Multiple stab wounds	Sedated	<i>Musca domestica</i>	Urethra
Greenberg <sup>8</sup>	1984	USA	n.i.	♂	Fatal disease	Died	<i>Lucilia sericata</i>	Tracheotomy wound
Greenberg <sup>8</sup>	1984	USA	n.i.	♀	Renal failure	No indication	<i>Lucilia sericata</i>	Nose
Smith and Clevenger <sup>9</sup>	1986	USA	64	♂	Diabetic coma	Comatose	<i>Cochliomyia macellaria</i>	Nose
Duque <i>et al.</i> <sup>10</sup>	1990	USA	62	♂	Right maxillectomy	No indication	<i>Cochliomyia hominivorax</i>	Nose/paranasal sinuses
Chodosh <i>et al.</i> <sup>11</sup>	1991	USA	62	♂	Dementia; peripheral vascular disease	Helpless	<i>Cochliomyia hominivorax</i>	Eye
de Kaminsky <sup>13</sup>	1993	Honduras	19	♀	Condylomas in vaginal region	Normal	<i>Cochliomyia hominivorax</i>	Outer genital region
Josephson and Kraiden <sup>5</sup>	1993	Canada	82	♀	Myocardial infarction; encephalopathy	Comatose	<i>Cochliomyia macellaria</i>	Nose; nasopharynx; trachea
Daniel <i>et al.</i> <sup>15</sup>	1994	Czech Republic	42	♂	Facial injuries after accident	Normal	<i>Lucilia sericata</i>	Oral cavity; nose; paranasal sinuses
Minar <i>et al.</i> <sup>16</sup>	1995	Czech Republic	39	♂	Skull fracture; other injuries after accident	Helpless	<i>Lucilia sericata</i>	Nose; oral cavity

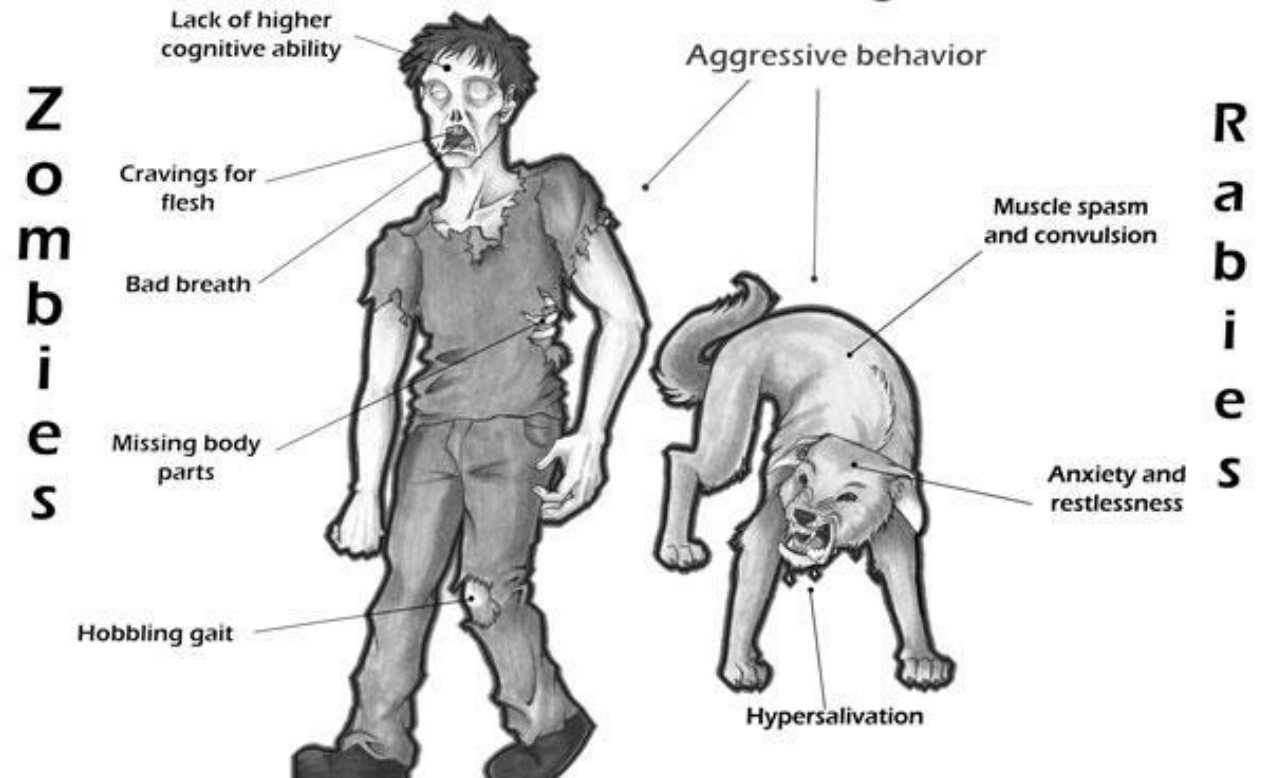


# Occurrence of Nasal Nosocomial Myiasis by *Lucilia sericata* (Diptera: Calliphoridae) In North of Iran

*MR Youssefi<sup>1</sup>, \*MT Rahimi<sup>2</sup>, Z Marhaba<sup>2</sup>*



## How to Identify



Parte 2

# RAIVA EM TRANSPLANTES

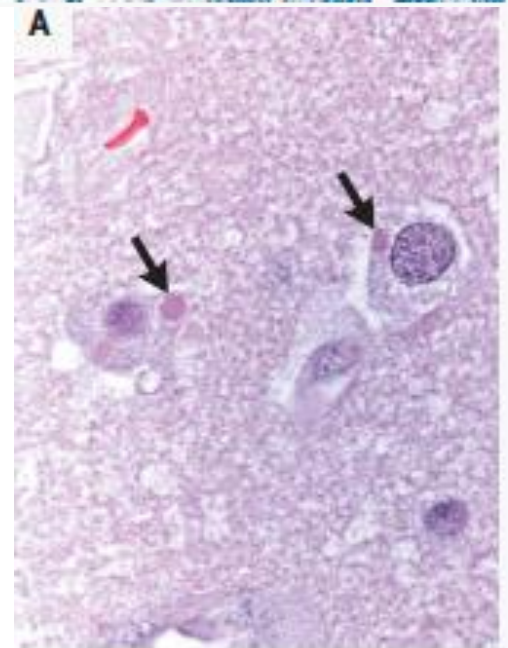
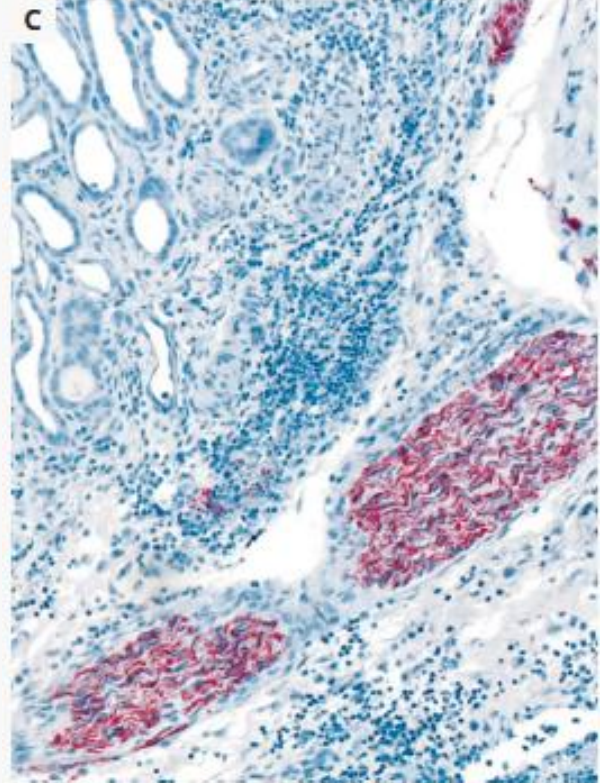
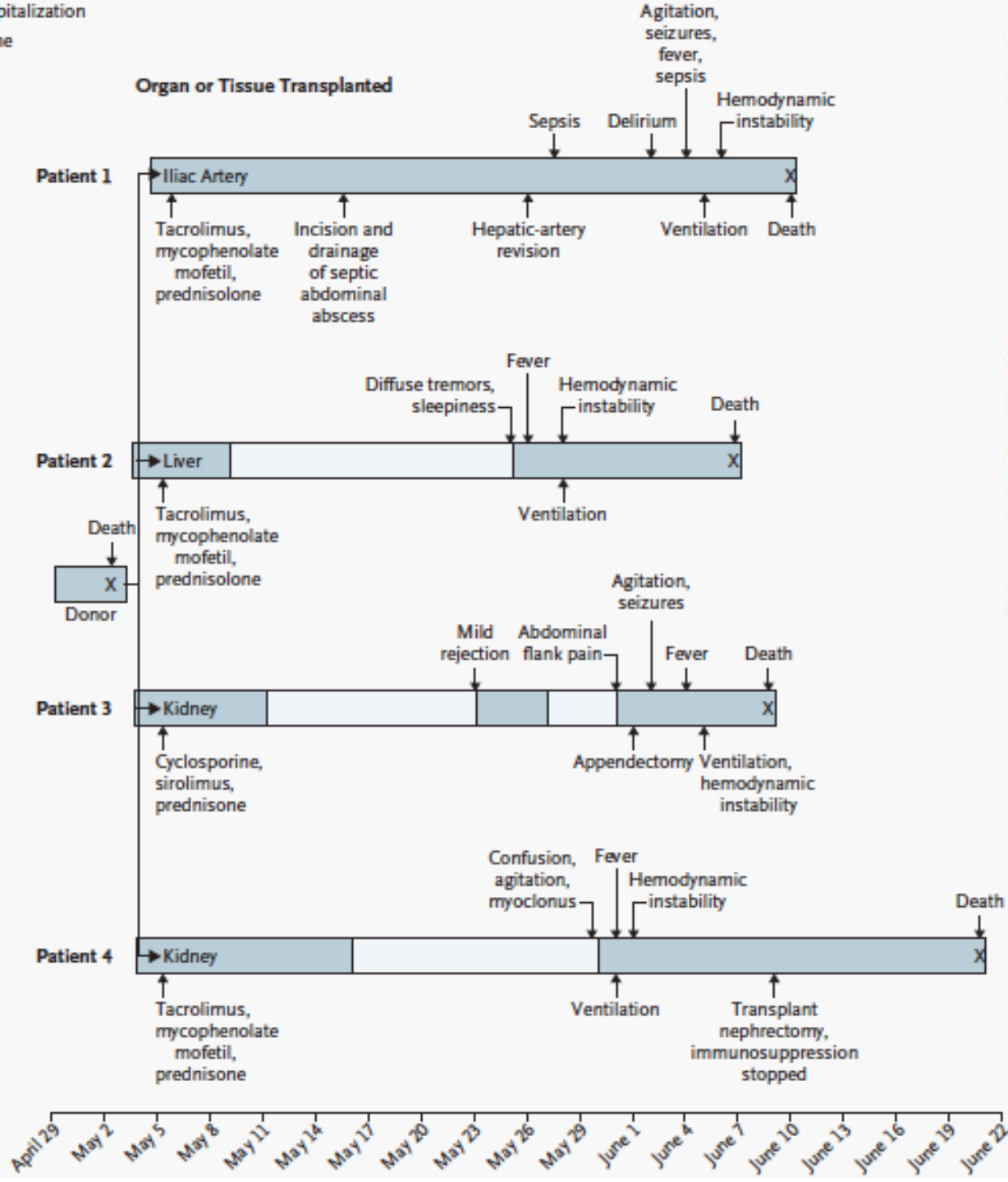
# Transmission of Rabies Virus from an Organ Donor to Four Transplant Recipients

Arjun Srinivasan, M.D., Elizabeth C. Burton, M.D., Matthew J. Kuehnert, M.D.,  
Charles Rupprecht, V.M.D., Ph.D., William L. Sutker, M.D.,  
Thomas G. Ksiazek, D.V.M., Ph.D., Christopher D. Paddock, M.D.,  
Jeannette Guarner, M.D., Wun-Ju Shieh, M.D., Ph.D., Cynthia Goldsmith, M.S.,  
Cathleen A. Hanlon, V.M.D., Ph.D., James Zoretic, M.D., Bernard Fischbach, M.D.,  
Michael Niezgoda, M.S., Waleed H. El-Feky, M.D., Lillian Orciari, M.S.,  
Edmund Q. Sanchez, M.D., Anna Likos, M.D., M.P.H., Goran B. Klintmalm, M.D.,  
Denise Cardo, M.D., James LeDuc, Ph.D., Mary E. Chamberland, M.D., M.P.H.,  
Daniel B. Jernigan, M.D., M.P.H., and Sherif R. Zaki, M.D., Ph.D.,  
for the Rabies in Transplant Recipients Investigation Team\*



☐ Hospitalization  
☐ Home

# Organ or Tissue Transplanted



# Management and Outcomes after Multiple Corneal and Solid Organ Transplantations from a Donor Infected with Rabies Virus

T. Maier,<sup>1,a</sup> A. Schwarting,<sup>2,a</sup> D. Mauer,<sup>4</sup> R. S. Ross,<sup>5</sup> A. Martens,<sup>6</sup> V. Kliem,<sup>7</sup> J. Wahl,<sup>3</sup> M. Panning,<sup>8</sup> S. Baumgarte,<sup>9</sup> T. Müller,<sup>10</sup> S. Pfefferle,<sup>8</sup> H. Ebel,<sup>1</sup> J. Schmidt,<sup>11</sup> K. Tenner-Racz,<sup>8</sup> P. Racz,<sup>8</sup> M. Schmid,<sup>4</sup> M. Strüber,<sup>6</sup> B. Wolters,<sup>5</sup> D. Gotthardt,<sup>12</sup> F. Bitz,<sup>7</sup> L. Frisch,<sup>3</sup> N. Pfeiffer,<sup>3</sup> H. Fickenscher,<sup>13,b</sup> P. Sauer,<sup>12</sup> C. E. Rupprecht,<sup>14</sup> M. Roggendorf,<sup>5</sup> A. Haverich,<sup>6</sup> P. Galle,<sup>2</sup> J. Hoyer,<sup>1</sup> and C. Drosten<sup>8,b</sup>

**Results.** Recipients of both cornea and liver transplants developed no symptoms. The recipient of the liver transplant had been vaccinated ~20 years before transplantation. Two recipients of kidney and lung transplants developed rabies and died within days of symptomatic disease. Another kidney recipient was treated 7 weeks before he died. The cerebrospinal fluid viral load remained at constant low levels (<10,000 copies/mL) for ~5 weeks; it increased suddenly by almost 5 orders of magnitude thereafter. After death, no virus was found in peripheral compartments (nerve tissue, heart, liver, or the small intestine) in this patient, in contrast to in patients in the same cohort who died early.

All recipients were contacted immediately when findings in the donor were communicated on day 46 after transplantation. Postexposure prophylaxis (PEP) was started immediately for all recipients, comprising a single 20-IU/kg dose of human anti-rabies hyper-immunoglobulin (HRIG; Berirab; Behring) and 2.5 IU of purified chicken embryo cell vaccine (PCECV; Rabipur, Behring) intramuscularly after 0, 3, 7, 14, and 28 days. After completion of PEP, recipients 1 and 2 showed titers of rabies virus-specific antibodies of 1.0 and 6.0 IU/mL, respectively. Corneal grafts were removed and replaced in both recipients. Rabies virus RT-PCR repeatedly yielded negative results for the removed corneas. Both patients had not developed symptoms to date.

Clinical courses

Patient 4

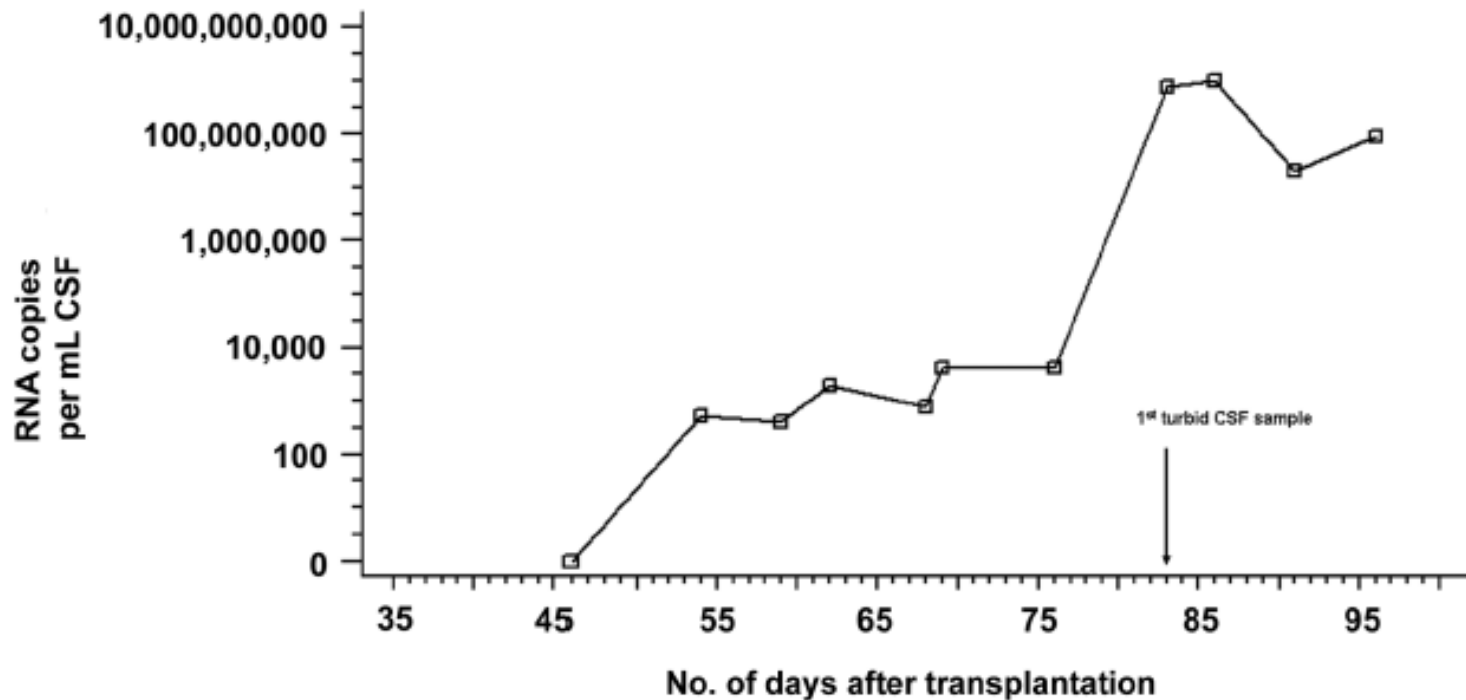
HRIG  
Ketamine  
Midazolam  
Ribavirin

Patient 5

HRIG  
Ribavirin  
Interferon-alpha  
Amantadine

Patient 6

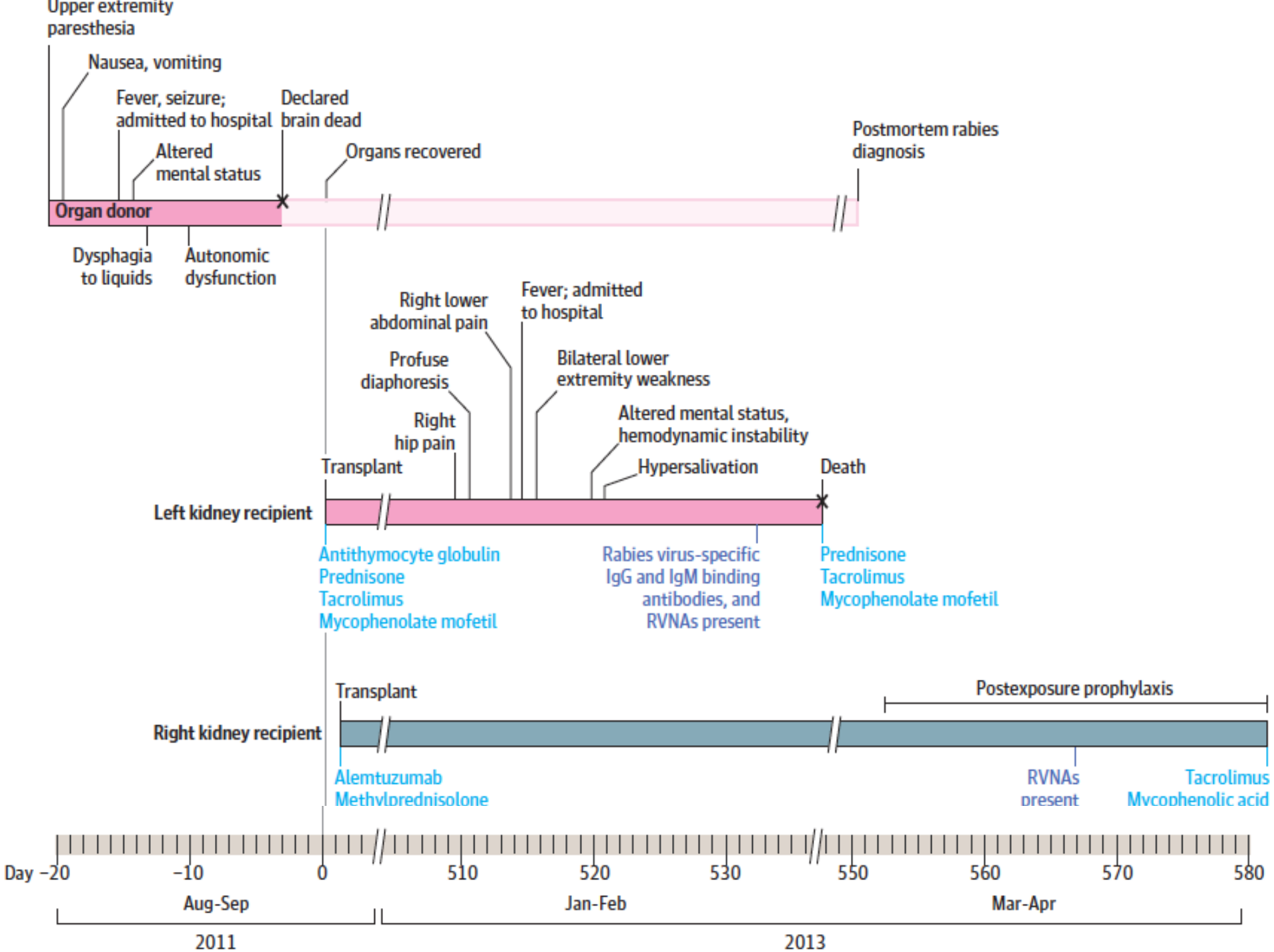
HRIG  
Ketamine  
Midazolam  
Phenobarbital  
Ribavirin  
Interferon-alpha  
Amantadine

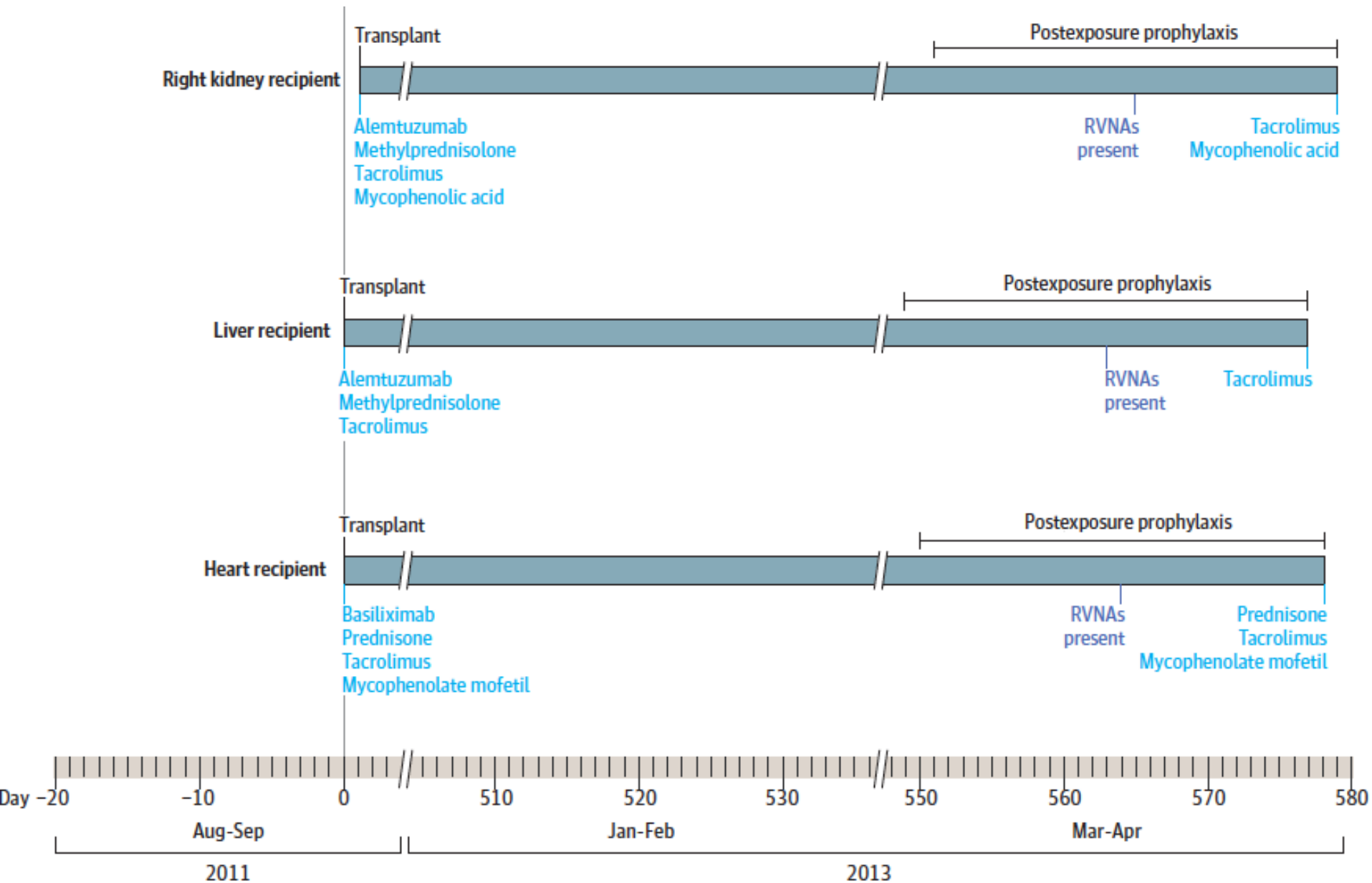


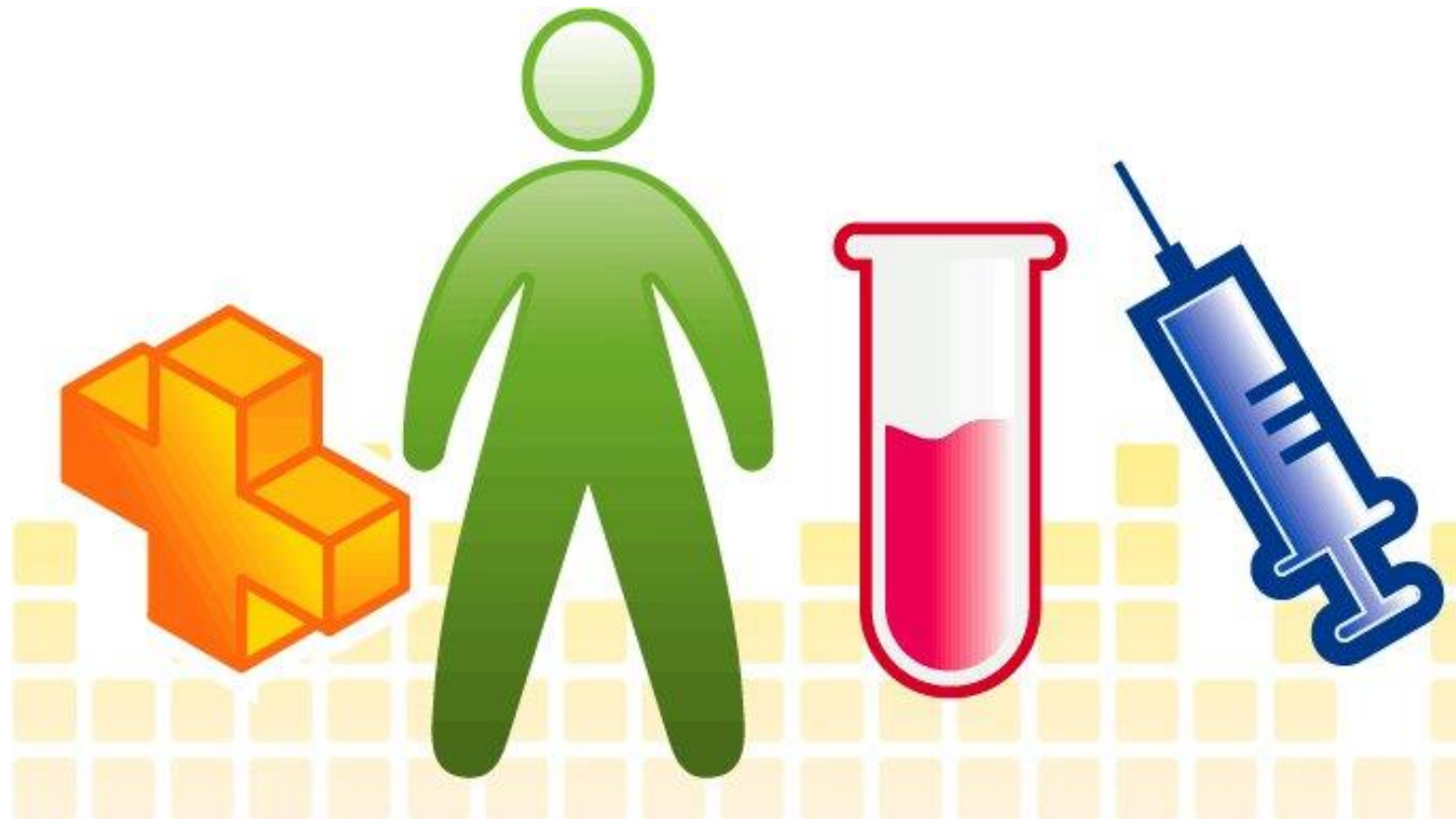
# Raccoon Rabies Virus Variant Transmission Through Solid Organ Transplantation

Neil M. Vora, MD; Sridhar V. Basavaraju, MD; Katherine A. Feldman, DVM, MPH; Christopher D. Paddock, MD; Lillian Orciari, MS; Steven Gitterman, MD; Stephanie Griesse, MD, MPH; Ryan M. Wallace, DVM, MPH; Maria Said, MD, MHS; Dianna M. Blau, DVM, PhD; Gennaro Selvaggi, MD; Andres Velasco-Villa, PhD; Jana Ritter, DVM; Pamela Yager, BS; Agnes Kresch, MD; Mike Niezgoda, MS; Jesse Blanton, MPH; Valentina Stosor, MD; Edward M. Falta, MD; G. Marshall Lyon III, MD; Teresa Zembower, MD, MPH; Natalia Kuzmina, PhD, MS; Prashant K. Rohatgi, MD; Sergio Recuenco, MD, DrPH; Sherif Zaki, MD, PhD; Inger Damon, MD, PhD; Richard Franka, DVM, PhD; Matthew J. Kuehnert, MD; and the Transplant-Associated Rabies Virus Transmission Investigation Team









Parte 3

**PROFISSIONAIS DA SAÚDE**

# Health care workers causing large nosocomial outbreaks: a systematic review

Lisa Danzmann<sup>1</sup>, Petra Gastmeier<sup>2</sup>, Frank Schwab<sup>2</sup> and Ralf-Peter Vonberg<sup>1\*</sup>

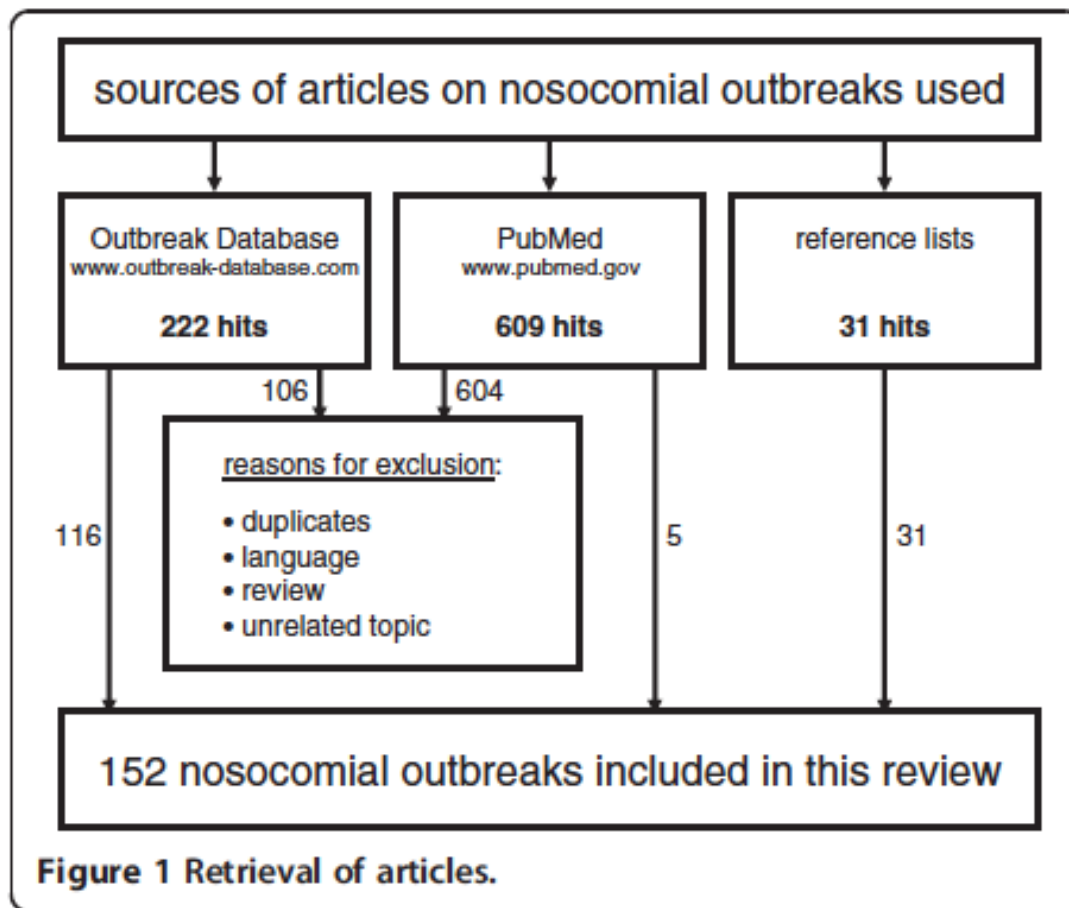


Figure 1 Retrieval of articles.

Grandes surtos foram definidos como aqueles em que o número de acometidos superou a mediana das séries notificadas.

1.449 acometidos  
51 óbitos  
76 “grandes surtos”  
76 “surtos menores”

Risk factor	Risk factor present			Risk factor lacking			p-value
	# LO	# all NO	%	# LO	# all NO	%	
departments (n=150)*							
surgery	32	76	42.1	44	74	59.1	0.036
neonatology	24	41	58.5	52	109	47.7	0.274
gynecology	14	20	70.0	62	130	47.7	0.091
pediatrics	1	9	11.1	75	141	53.2	0.017
internal medicine	1	2	50.0	75	148	50.7	1.000
other	11	21	52.4	65	129	50.4	1.000
type of ward (n=150)*							
operating theatre	26	63	41.3	50	87	57.5	0.068
peripheral ward	33	59	55.9	43	91	47.3	0.320
intensive care unit	17	28	60.7	59	122	48.4	0.296
outpatient clinic	4	9	44.4	72	141	51.1	0.744
age groups (n=147)*							
neonates (≤ 1 m)	24	39	61.5	52	108	48.1	0.191
infants (1 m - 1 y)	3	6	50.0	73	141	51.8	1.000
children (> 1–12 y)	4	14	28.6	72	133	54.1	0.092
adolescents (13–17 y)	9	13	69.2	67	134	50.0	0.249
adults (18–69 y)	49	93	52.7	27	54	50.0	0.864
seniors (≥ 70 y)	13	26	50.0	63	121	52.1	1.000



**microorganism (n=152)**

bacteria	58	108	53.7	19	44	43.2	0.284
viruses	14	34	41.2	63	118	53.4	0.245
fungi	5	10	50.0	72	142	50.7	1.000

**species (n=152)**

<i>S. aureus</i>	26	49	53.1	51	103	49.5	0.730
hepatitis B virus	9	27	33.3	68	125	54.4	0.057
<i>S. pyogenes</i>	12	19	63.2	65	133	48.9	0.328
<i>Candida spp.</i>	5	8	62.5	72	144	50.0	0.719
<i>P. aeruginosa</i>	2	7	28.6	75	145	51.7	0.273

**transmission (n=152)**

contact	53	105	50.5	24	47	51.1	1.000
droplets	8	17	47.1	69	135	51.1	0.801
airborne	11	16	68.8	66	136	48.5	0.860
foodborne	3	6	50.0	74	146	50.7	1.000
unknown	3	13	23.1	74	139	53.2	0.045

**HCW characteristics**

colonization only	43	73	58.9	34	79	43.0	0.054
HWC infected	31	70	44.3	46	82	56.1	0.193
blood borne infection	9	27	33.3	68	125	54.4	0.057
aware of carrier status	3	14	21.4	62	118	52.5	0.045
proper HH compliance	12	21	57.1	9	16	56.3	1.000
work experience > 5 y	9	18	50.0	8	12	66.7	0.536

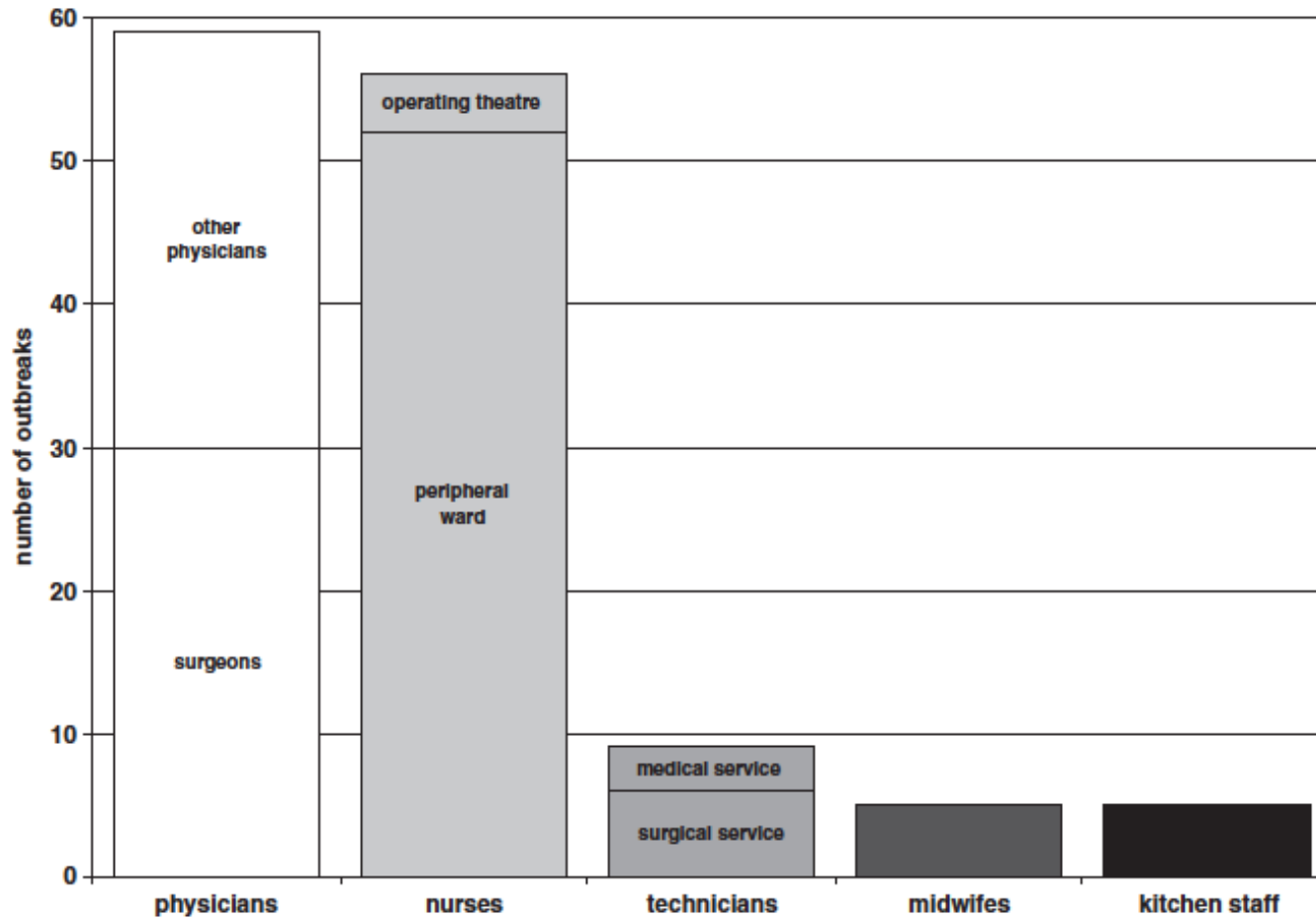
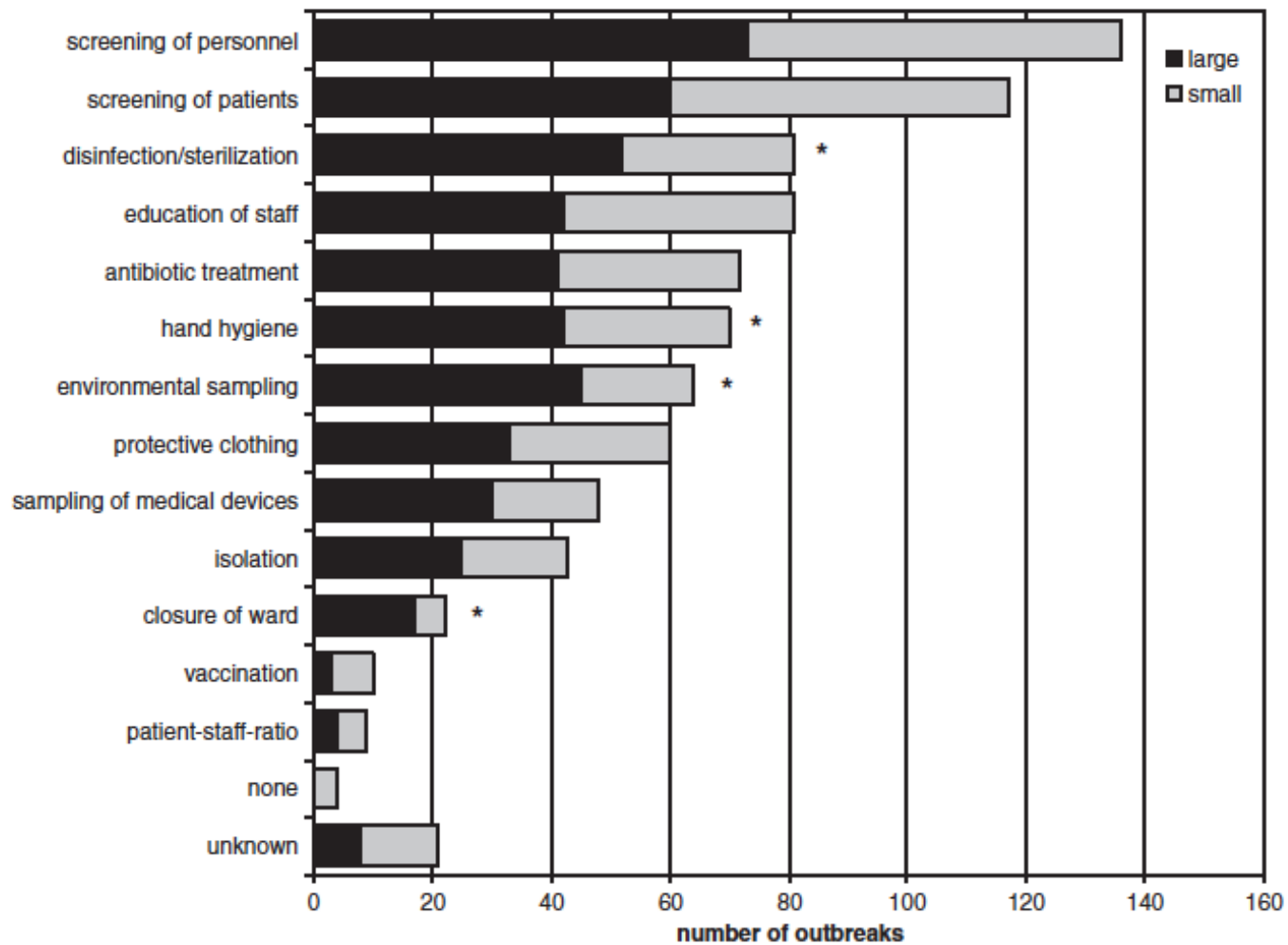


Figure 2 Occupation of health care workers causing nosocomial outbreaks.

**Table 2 Independent risk factors for the occurrence of large outbreaks ( $\geq 7$  patients) as determined by multiple logistic regression analysis with stepwise variable selection**

Risk factor	# all NO	Odds ratio	95% confidence interval	p-value
<b>departments</b>				
surgery	76	0.42	0.19–0.92	0.030
gynecology	20	6.89	1.55–30.63	0.011
pediatrics	9	0.05	0.00–0.45	0.008
<b>occurrence after 1989</b>				
reference value: no	71	1.00	n. d.	0.024
yes	72	0.48	0.22–1.06	0.068
<b>aware of carrier status</b>				
reference value: no	116	1.00	n. d.	0.024
yes	14	0.11	0.02–0.55	0.008
<b>transmission</b>				
unknown	13	0.16	0.03–0.75	0.020

NO = nosocomial outbreak; n. d. = not defined.



**Figure 3** Distribution of infection control measures initiated in large and small outbreaks (\* = significant difference).

HCW that were only colonized and not infected caused rather large NO (58.9%) than others (43.0%) ( $p = 0.54$ ) (Table 1). Only 1.4% of the colonized HCW were aware of their carrier status, compared to 17.1% of infected HCW.

Figure 2 shows that physicians caused most NO in absolute numbers (59 of 144 NO). Compared to the rather small proportion of physicians at all hospital staff, one may wonder why this group of HCW has likely been involved in NO. One explanation may be, that physicians have often and intensive contact, for example during invasive procedures, where the patient is rather vulnerable.

## Conclusion

*Practical consequences.* Screening of personnel should not be performed regularly, as less than 10% of NO are caused by HCW. However, if certain species of microorganisms (e.g. *S. aureus*, HBV, *S. pyogenes*) are involved, the possibility of a carrier should be taken into account.



Bepa 2011;8(87):34-45

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*Informe epidemiológico*

## **Investigação epidemiológica de campo de um caso de tuberculose bacilífera em profissional de saúde de um hospital geral**

*Epidemiological field investigation of a baciliferous tuberculosis case in health Professional from a general hospital*

**Divisão de Tuberculose. Centro de Vigilância Epidemiológica "Prof. Alexandre Vranjac".  
Coordenadoria de Controle de Doenças. Secretaria de Estado da Saúde de São Paulo, SP, Brasil**

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Tuberculose em Técnicas de Enfermagem de Neonatologia

Franco da Rocha (SP), 2010: 37 neonatos expostos

**Campinas (SP), 2011:  
> neonatos expostos  
17 sintomáticos, 3 possíveis**

# Impact of visitors and hospital staff on nosocomial transmission and spread to community

Ying-Hen Hsieh<sup>a,b,\*</sup>, Junli Liu<sup>c</sup>, Yun-Huei Tzeng<sup>a,d</sup>, Jianhong Wu<sup>e</sup>

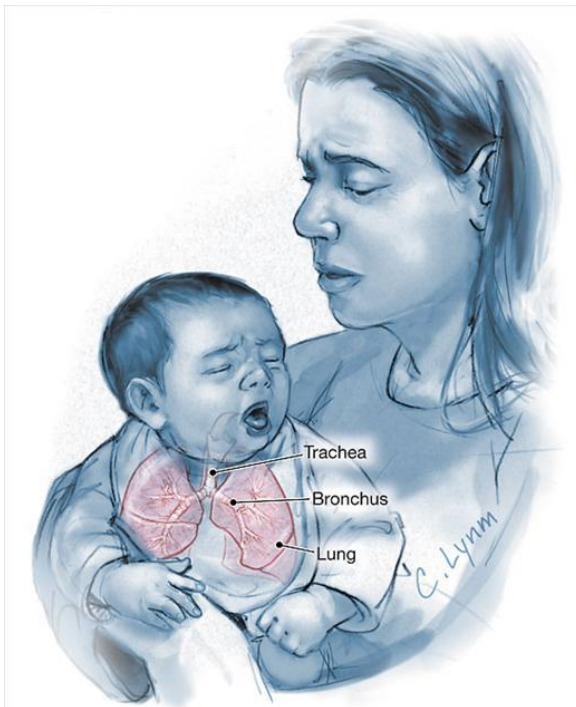
<sup>a</sup> Department of Public Health, China Medical University, Taichung 40402, Taiwan

<sup>b</sup> Center for Infectious Disease Education and Research, China Medical University, Taichung 40402, Taiwan

<sup>c</sup> School of Science, Xian Polytechnic University, Xian 710048, China

<sup>d</sup> Center for General Education, China Medical University, Taichung 40402, Taiwan

<sup>e</sup> Department of Mathematics and Statistics and Centre for Disease Modelling, York University, Toronto, Ontario, Canada M3J 1P3



Modelagem matemática baseada na transmissão de Pertussis

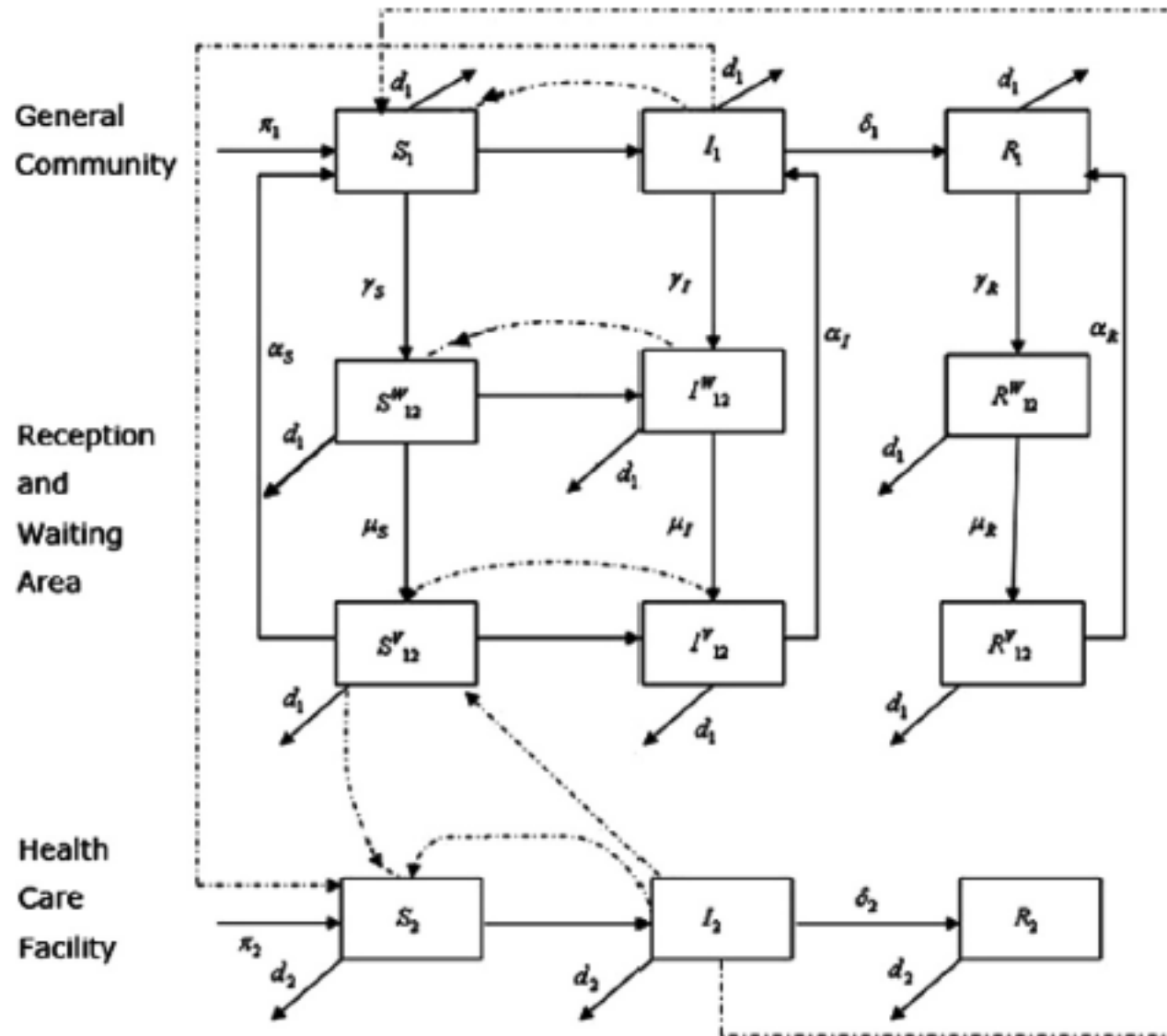


Fig. 1. Schematic diagram of disease progression (horizontal) and transmission (vertical).

Furthermore, only the disease transmission rates between residents in the community  $\beta_{11}$  and in the healthcare facility  $\beta_2$ , along with the transmission rate of the infective visitors from the community to the susceptible residents in the healthcare facility  $\bar{\beta}_{12}$ , are important in affecting the dynamic behavior of the epidemic model (Fig. 4). That is, sufficient decrease in these three rates can effectively lower  $R_0$  down to below 1 and thus alter the asymptotic behavior of the system from globally stable endemicity to a disease-free state. All other transmission rates have little effect

Ou seja...

...em uma situação de transmissão na comunidade, os objetivos devem ser reduzir a transmissibilidade dos “visitantes”(definidos como visitas reais ou pacientes ambulatoriais) e a susceptibilidade da “população hospitalar” (profissionais e internados).



*Parte 4*

VIGILÂNCIA E NOTIFICAÇÃO



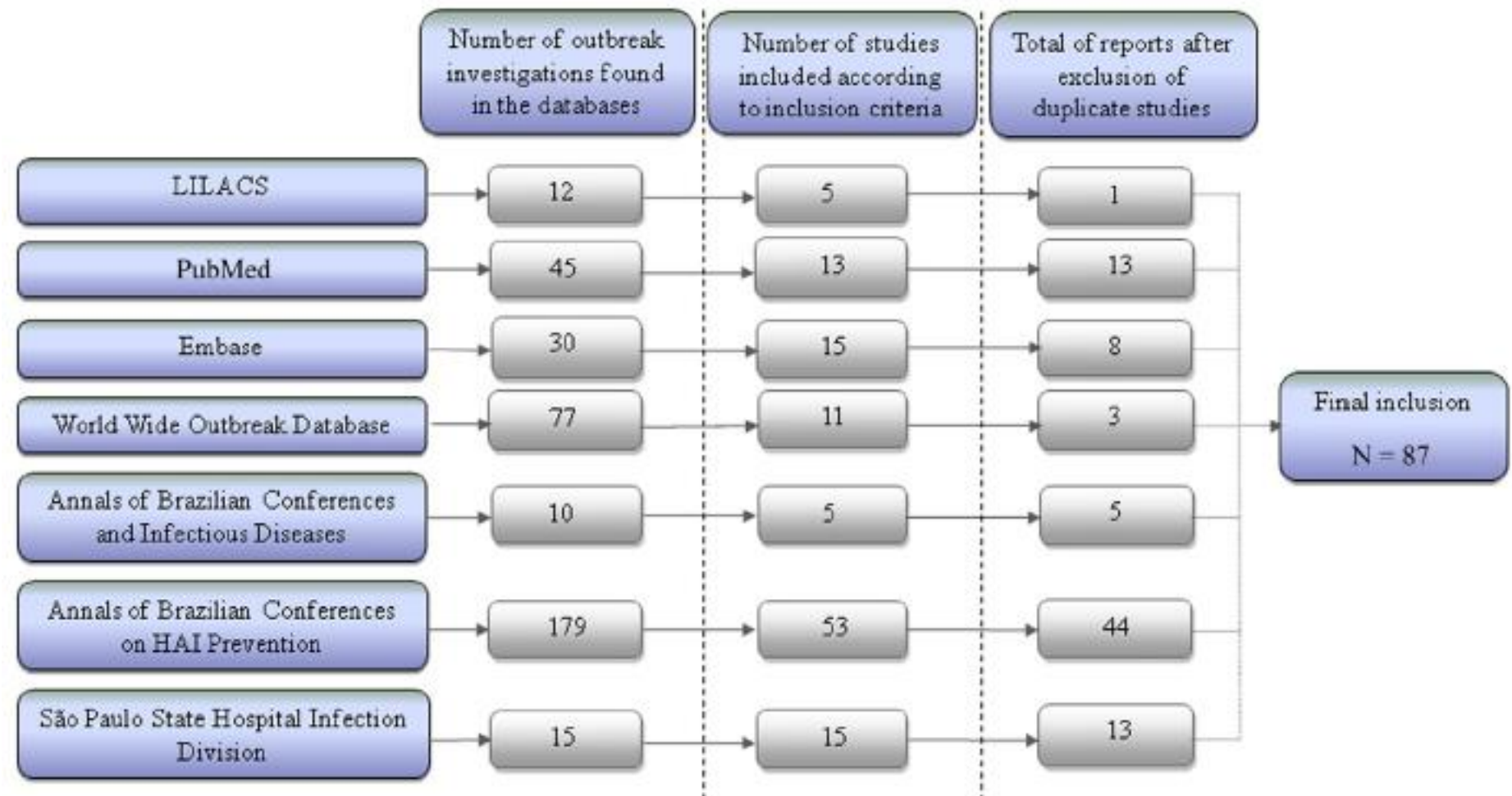
# Evaluating the quality of outbreak reports on health care-associated infections in São Paulo, Brazil, during 2000-2010 using the ORION statement findings and recommendations

Amanda Luiz Pires Maciel RN<sup>a</sup>, Denise Brandão de Assis MD, MSc<sup>b</sup>,  
Geraldine Madalosso MD, MSc<sup>b</sup>, Maria Clara Padoveze RN, MSc, PhD<sup>a,\*</sup>

<sup>a</sup>Department of Collective Health Nursing, School of Nursing, University of São Paulo, São Paulo, Brazil

<sup>b</sup>São Paulo State Health Department, Centro de Vigilância Epidemiológica Prof Alexandre Vranjac, Hospital Infection Division, São Paulo, Brazil

Estamos notificando nossos surtos  
relevantes às autoridades de saúde pública?



Sources of transmission related to the outbreaks reported in São Paulo State, Brazil, 2000-2010

Source of transmission	n (%)	Details of the source in reports (n)
Unknown	55 (63.2)	Not provided <sup>23-25,28,32,33,36-40,42,44,45,47,48,51-54,56-61,63,65,69,70,72-74,77-80,82-84,86-91,93,95,96,99-102,107</sup>
Contaminated substances	10 (11.5)	Anticoagulant substance (2), <sup>26,67</sup> manitol (1), <sup>27</sup> parenteral nutrition (2), <sup>75,76</sup> enteral nutrition (1), <sup>31</sup> chemotherapeutic substance (1), <sup>35</sup> lactated Ringer's solution (1), <sup>68</sup> saline (1), <sup>30</sup> chlorhexidine (1) <sup>34</sup>
Colonized staff	3 (3.4)	Staff contaminated with <i>Klebsiella pneumoniae</i> associated to onychomycosis in hands (3) <sup>29,50,92</sup>
Environmental contamination	4 (4.6)	Water (3), <sup>22,66,105</sup> dialysis equipment (1) <sup>55</sup>
Infect or colonized patient	4 (4.6)	Scabies (2), <sup>49,81</sup> incubation period of chickenpox (1), <sup>97</sup> and respiratory syncytial virus (1) <sup>103</sup>
Foods	2 (2.3)	Meal (1), <sup>108</sup> dessert (1) <sup>85</sup>
Sick visitor	1 (1.1)	Respiratory syncytial virus (1) <sup>62</sup>
Contaminated substances and environmental contamination	1 (1.1)	Saline and dialysis reservoir (1) <sup>43</sup>
Device contamination	1 (1.1)	Contamination of urinary catheter by health care workers during patient care (1) <sup>94</sup>
Pseudo-outbreaks	6 (6.8)	Contaminated sample (3), <sup>41,64,71</sup> surveillance system (2), <sup>98,104</sup> contaminated saline and water (1) <sup>46</sup>

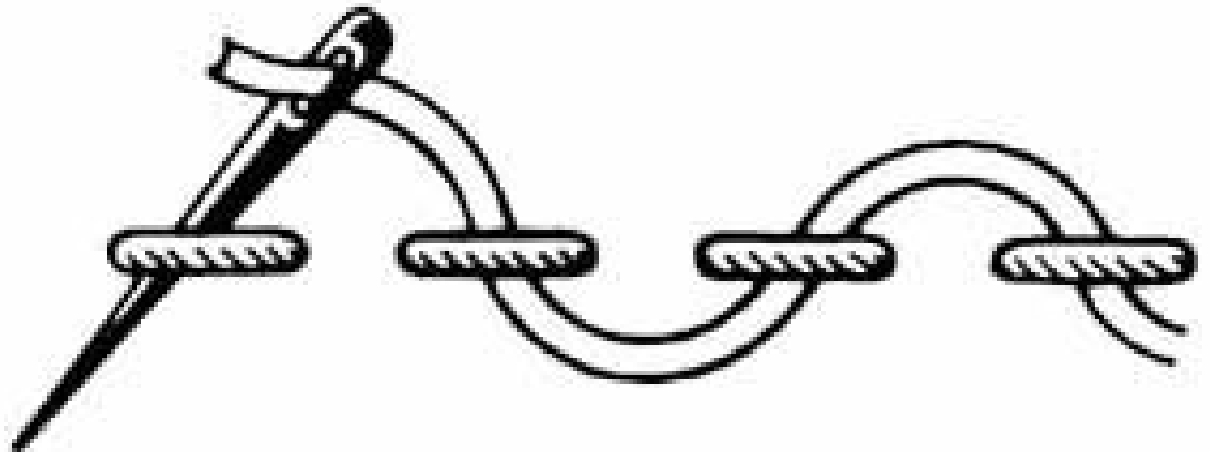
### Compliance with mandatory outbreak reporting

Only 15 outbreaks (17.2%) were reported to the Hospital Infection Division at the São Paulo State Health Department, in accordance with federal law.

ORION item	At least 1 descriptor according to ORION	All the descriptors according to ORION
Title and abstract	73/87 (83.9)	58/87 (66.7)
Introduction	73/87 (83.9)	28/87 (32.2)
Background		
Type of paper	85/87 (97.7)	85/87 (97.7)
Dates	—†	82/87 (94.3)
Objectives	—†	65/87 (74.7)
Methods		
Design	66/87 (75.8)	29/87 (33.3)
Participants	51/87 (58.6)	2/87 (2.3)
Setting	87/87 (100)	40/87 (46)
Interventions	42/87 (51.9)	42/87 (51.9)
Culturing and typing	60/87 (69)	48/87 (55.2)
Infection-related outcomes	72/87 (82.8)	2/87 (2.3)
Economic outcomes		Not relevant
Potential threats to internal validity*	—†	3/13 (23.1)
Sample size		Not relevant
Statistical methods*	—†	11/13 (84.6)
Results		
Recruitment		Not relevant
Outcomes and estimation	—†	34/87 (39.1)
Ancillary analyses*	—†	8/13 (61.5)
Harms		Not relevant
Discussion		
Interpretation	78/87 (89.7)	78/87 (89.7)
Generalizability	34/87 (39)	11/87 (12.6)
Overall evidence	—†	34/87 (39)

Notification of outbreaks to relevant health authorities is fundamental in driving governmental measures aimed at preventing new cases, deaths, and epidemics. The role of such authorities goes beyond dealing with an outbreak at the point at which it occurs. Strategies to support health care facilities via strong educational programs for preventive measures and hospital epidemiology are essential. It is of the utmost importance that authorities create a tolerant environment to promote confidence within health care settings to report such events, thus minimizing fear of repercussions and empowering proactiveness for prevention.





Finalizando...

# ALINHAVO

- Nem todos os surtos envolvem agentes usualmente relacionados a IRAS.
- O surto pode ocorrer simultaneamente no interior e externamente aos serviços de saúde.
- Retardo no diagnóstico e na resposta pode prolongar um surto e ampliar o número de acometidos.

- A participação de profissionais da saúde na origem e propagação de surtos reforça o imperativo ético de equacionar “responsabilização” e “educação continuada”.
- A notificação aos órgãos governamentais, realizada em ambiente de confiança e apoio mútuo, exerce função central na prevenção e controle de surtos.



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**OBRIGADO**