

Ten years' experience with an evidence based guideline programme in the Netherlands: SWAB

Dutch Working
Party on
Antibiotic
Policy

Dr. J.M. Prins



Activities SWAB

- Surveillance
 - Resistance
 - Use of Antibiotics
- Guideline development
- Education
 - SWAB symposium



NETHMAP 2010

Consumption of antimicrobial agents and
antimicrobial resistance
among medically important bacteria
in the Netherlands

rivm

SWAB

Activities SWAB

- Surveillance
 - Resistance
 - Use of Antibiotics
- Guideline development
- Education
 - SWAB symposium

Farmacotherapie

Optimaliseren van het antibioticabeleid in Nederland. II. SWAB-richtlijnen voor antimicrobiële therapie bij thuis opgelopen pneumonie en bij nosocomiale pneumonie

M.E.E.VAN KASTEREN, W.J.A.WIJNANDS, E.E.STOBBERINGH, R.JANKNEGT EN J.W.M.VAN DER MEER

Op initiatief van de Vereniging voor Infectieziekten, de Nederlandse Vereniging voor Medische Microbiologie en de Nederlandse Vereniging van Ziekenhuisapothekers werd in oktober 1996 de Stichting Werkgroep Antibioticabeleid (SWAB) opgericht. De doelstelling

Zie ook het artikel op bl. 949.

SAMENVATTING

Problems guideline development

- Several parties are developing guidelines
 - SWAB, NHG, NVALT
- No uniform recommendations
- Increasing quality demands

APPRAISAL OF GUIDELINES FOR RESEARCH & EVALUATION



INSTRUMENT

The AGREE Collaboration
September 2001



APPRAISAL OF **G**UIDELINES for **R**ESearch & **E**VALUATION **II**



INSTRUMENT

The AGREE Next Steps Consortium

May 2009

SWAB: Steps in guideline development

- One guideline per year
- Writing committee appointed by Board SWAB
 - Coordinator (paid)
 - Representatives Board SWAB
 - Representatives professional societies

Guideline Development – practical issues

- systematic review of the literature
- “other considerations”
- stakeholder involvement
- implementation strategies
- updating the guideline and evaluation

Table 1. Key questions

1. Which are the causative bacterial species of CAP in the Netherlands and what is their susceptibility to commonly used antibiotics?
2. Is it possible to predict the causative agent of CAP on the basis of simple clinical data at first presentation?
3. Are certain risk factors associated with specific pathogens?
4. Is the severity of disease upon presentation of importance for the choice of initial treatment?
5. What is the role of radiological investigations in the diagnostic work-up of patients with a clinical suspicion on CAP?
6. What is the role of rapid diagnostic tests in treatment decisions and which microbiological investigations have to be performed in patients hospitalized with CAP?
7. What is the optimum initial treatment for patients with CAP?
8. What is the optimal antibiotic choice when specific pathogens have been identified?
9. When should the first dose of antibiotics be given to patients admitted to the hospital?
10. What is the optimal duration of antibiotic treatment for CAP?
11. When can antibiotic therapy be switched from the intravenous to the oral route?
12. What is the role of adjunctive immunotherapy for patients with CAP?
13. What is the recommended policy in patients with parapneumonic effusion?
14. What are reasonable quality indicators for antibiotic therapy in patients with CAP?

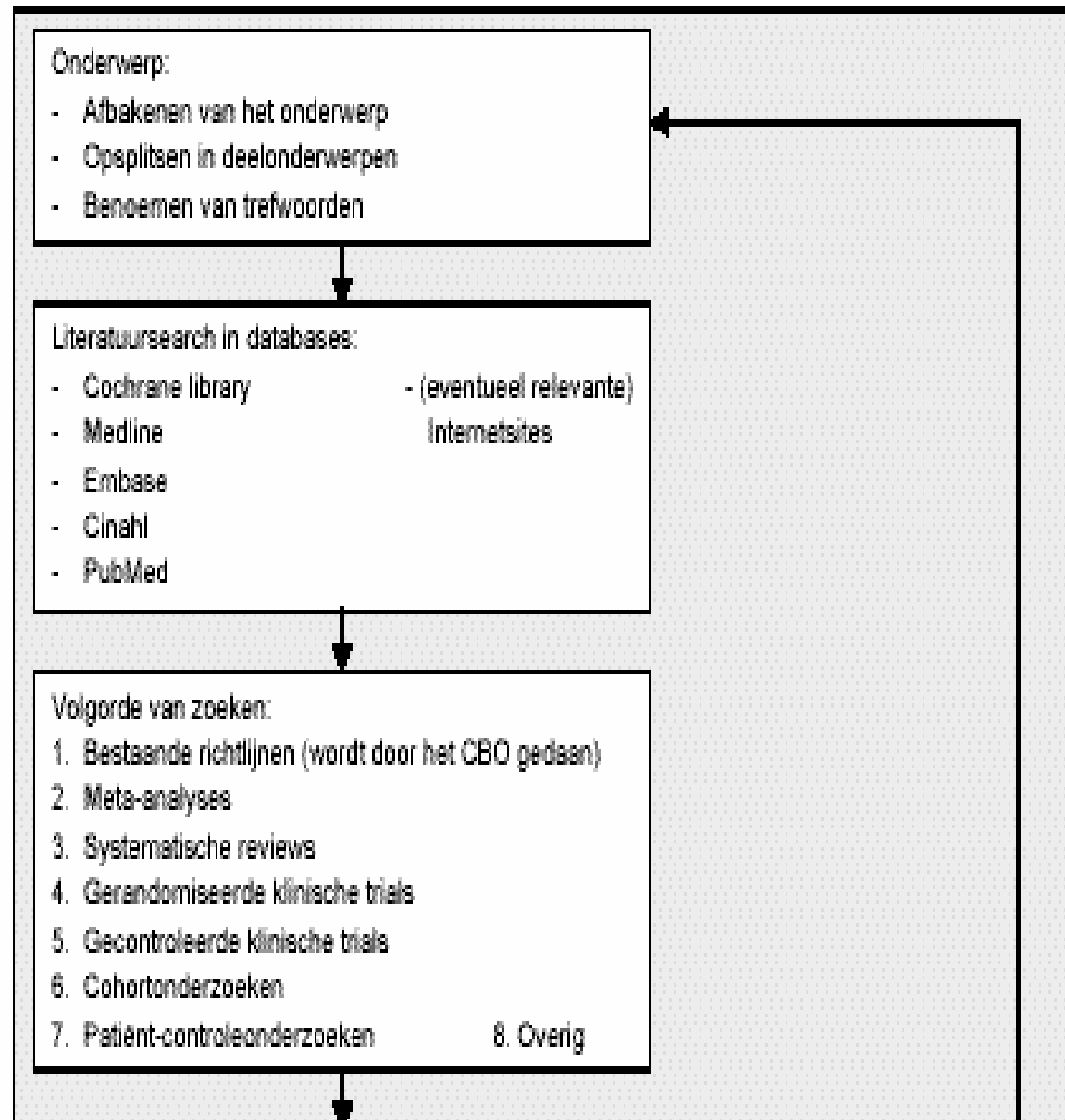
Table 2. Methodological quality of individual studies

Evidence level	Definition
A1	Systematic review of at least two independent A2-level studies
A2	Randomised Controlled Trial (RCT) of sufficient methodological quality and power or Prospective cohort study with sufficient power and with adequate confounding corrections
B	Comparative Study lacking the same quality as mentioned at A2 (including patient-control and cohort studies) or Prospective cohort study lacking the same quality as mentioned at A2, retrospective cohort study or patient-control study
C	Non-comparative study
D	Evidence based on the opinion of members of the guideline committee

Table 3. Levels of evidence¹³

Evidence level	Definition
Level 1	Study of level A1 or at least two independent studies of level A2
Level 2	One study of level A2 or at least two independent studies of level B
Level 3	One study of level B or C
Level 4	Expert opinion

Schema 2: Zoeken, selecteren, beoordelen en graderen van literatuur



10. WHAT IS THE OPTIMAL DURATION OF ANTIBIOTIC TREATMENT FOR CAP?

Literature overview (including Update since 2005 guideline)

Two recent randomized clinical trials among adults with mild to moderate-severe CAP treated with telitromycin and gatifloxacin respectively demonstrated that 5 days of treatment is as effective as 7 days of treatment^{245, 246}. In a Dutch study among 186 patients with mild to moderate-severe CAP who had substantially improved after three days of therapy, it was shown that 3 days of amoxicillin was as effective as 8 days of amoxicillin treatment²⁵. This is in line with earlier data from the seventies and eighties suggesting that very short therapy can be as effective as long therapy^{247, 248}. A study among 2188 children aged 2 – 59 months with non-severe pneumonia (defined as cough or respiratory problem and tachypnoea) showed a cure rate of 89.5% and 89.9% after respectively 3 and 5 days of treatments (difference 0.4%, non significant)²⁴⁹. A study from Pakistan among 2000 children with pneumonia showed the same rate of treatment success among those treated for 3 days with amoxicillin (n=1791, 79%) or for 5 days (n=1798, 80%, difference 1%, non significant)²⁵⁰. Lastly, a Cochrane review of 3 studies totalling 5763 children with non-severe pneumonia showed no significant difference in cure rates between 3 or 5 days of antibiotic treatment (RR 0.99; 95%-CI 0.97-1.01), no difference in therapy failure (RR 1.07; 95%-CI 0.92-1.25) and no difference in relapse 7 days after clinical cure (RR 1.09; 95%-CI 0.83-1.42)²⁵¹. In the event of complications, such as empyema, longer treatment is recommended and primary drainage is indicated.²⁵² In the IDSA guideline it is recommended that pneumonia caused by *S. aureus* be treated for at least 14 days, pneumonia caused by *L. pneumophila*, *M. pneumoniae* or *Chlamydothila spp.* 14 to 21 days⁷.

Conclusions

Conclusion 40	In adults with mild to moderate-severe CAP, for β -lactams and fluoroquinolones a treatment course of 5-7 days is not inferior to longer treatment duration. A minimum duration of treatment has still to be determined.
Level 1	A2: File ²⁴⁵ , Tellier ²⁴⁶ , el Moussaoui ²⁵ .
Conclusion 41	In children with mild to moderate-severe CAP, a treatment course of 3 days is as effective as treatment for 5 days.
Level 1	A1-2: Haider ²⁵¹ , Agarwal ²⁴⁹ , Pakistan ²⁵⁰
Conclusion 42	There have been no studies on the optimal duration of treatment for CAP with doxycycline.
Level 4	

ORGANISATION, WEBSITE	PRODUCT, (RECENT) GUIDELINES
Society for Healthcare Epidemiology of America (SHEA), zie publicaties	Guidelines, transmission MRSA/ VRE
Centers for Disease Control (CDC) www.cdc.gov CDC/Hospital Infection Control Practices Committee (HICPAC)	Guidelines, Prevention of AIDS, cholera, dengue, STD, malaria, Immunizations Recommendations on the Prevention of vancomycin resistance 1995
Infectious Diseases Society of America (IDSA) www.journals.uchicago.edu/IDSA/guide/	Guidelines, Quality standards: Bacteremia , Surgical wound prophylaxis (1994)
Scottish Intercollegiate Guidelines Network (SIGN) www.sign.ac.uk/guidelines/published/	Guidelines, Antibiotic prophylaxis in surgery (2000), Diagnosis and management of childhood otitis media in primary care (2003)

Other considerations
are also important

Especially for antibiotic
guidelines!

Dutch epidemiology

Dutch resistance percentages

Sensitivity pneumococci

NETHMAP 2010

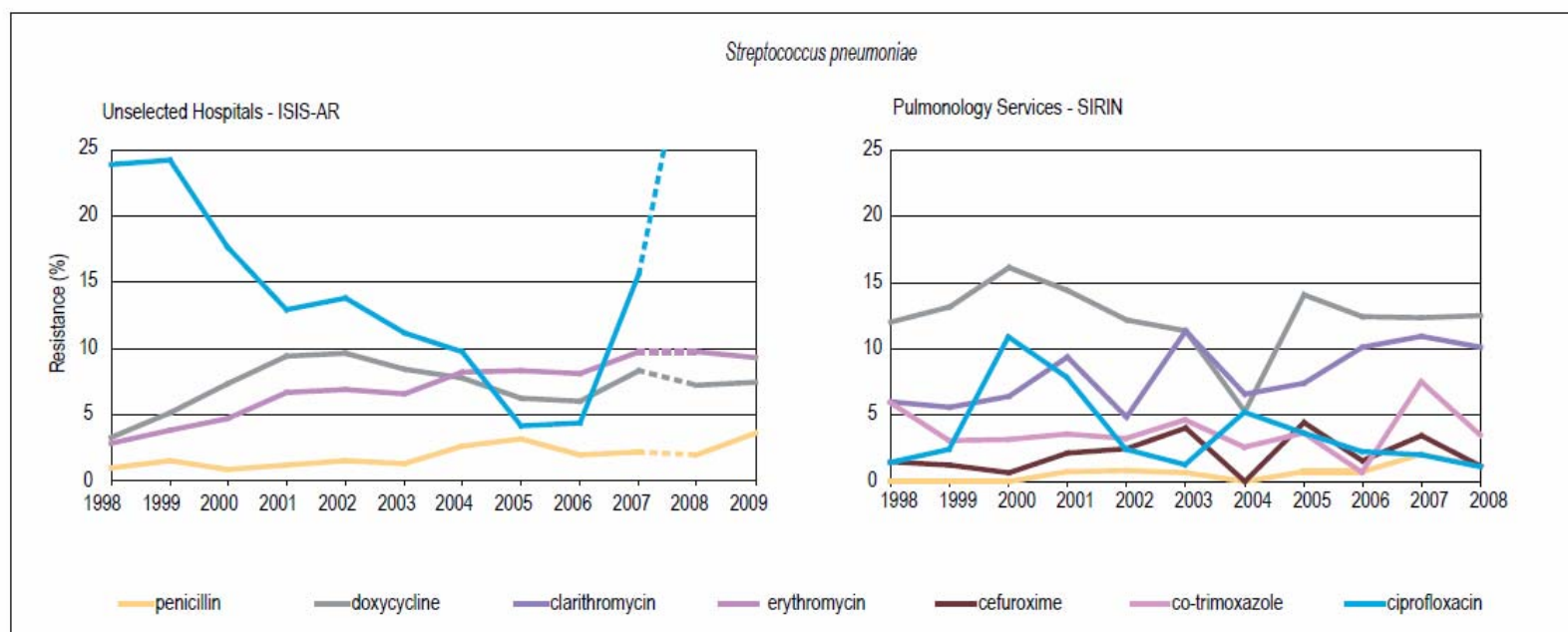


Figure 48. Resistance among clinical strains of *Streptococcus pneumoniae* (N=5.000-21.000) from Unselected Hospital Departments, calculated from the values for intermediate susceptibility and resistance (I+R) reported to ISIS-AR and trends in antibiotic resistance among clinical strains of *S. pneumoniae* from Pulmonology Services (N=1.858), calculated according to the breakpoints for resistance of EUCAST.

Tabel 2. Resistentie bij endemisch- en reisgerelateerde isolaten *C. jejuni* and *C. coli* CaSa-project, 16 streeklaboratoria.

	Endemisch				Reisgerelateerd			
	C. jejuni		C. coli		C. jejuni		C. coli	
	N	R%	N	R%	N	R%	N	R%
Fluorochinolone	2397	30,9	176	39,2	280	52,5	44	59,1
Tetracycline	1870	17,9	153	35,3	236	28,8	35	34,3
Erythromycine	2297	3,9	175	6,3	262	2,7	38	10,5

- Literature review
- Other considerations



- Recommendation

Recommendations

What is the optimal duration of antibiotic treatment for CAP?

Recommendation	If adult patients with mild to moderate-severe CAP are treated with a β -lactam antibiotic or fluoroquinolones, the length of antibiotic treatment can be shortened to 5 days in those patients who have substantially improved after 3 days of treatment. There have been no studies on the optimal duration of treatment for CAP with doxycycline. We suggest continuing 7 days of treatment in these cases.
Recommendation	Pneumonia caused by <i>S. aureus</i> should be treated for at least 14 days, pneumonia caused by <i>M. pneumoniae</i> or <i>Chlamydophila spp.</i> 14 to 21 days.
Recommendation	For <i>Legionella</i> pneumonia a treatment duration of 7-10 days is sufficient in patients with a good clinical response.
Recommendation	Q-koorts volgt nog
Recommendation	Measurement of procalcitonin levels to guide duration of antibiotic therapy is not yet recommended in the standard care of patients with CAP when standard treatment duration is limited to 5 to 7 days.

Guideline Development – practical issues

- systematic review of the literature
- ‘evidence’ as well as consensus are important
- stakeholder involvement
- implementation strategies
- updating the guideline and evaluation

Stakeholders

- Prescribing doctors
 - professional societies
 - including GPs
 - early stage
- Antibiotic policy committee
hospitals

Concept guideline

- Sent to members professional societies
- 6 weeks
- Guideline finalized

Guideline Development – practical issues

- systematic review of the literature
- ‘evidence’ as well as consensus are important
- stakeholder involvement
- implementation strategies
- updating the guideline and evaluation

Revised SWAB guidelines for antimicrobial therapy of community-acquired pneumonia

J.A. Schouten¹, J.M. Prins², M.J. Bonten³, J. Degener⁴, R.E. Janknegt⁵,
J.M.R. Hollander⁶, R.E. Jonkers⁷, W.J. Wijnands⁸, T.J. Verheij⁹, A.P.E. Sachs⁹,
B.J. Kullberg^{1*}

¹Nijmegen University Centre for Infectious Diseases (NUCI) and Department of General Internal Medicine, Radboud University Nijmegen Medical Centre, Nijmegen, the Netherlands, Departments of

²Infectious Diseases, Tropical Medicine and AIDS, and ³Pulmonary Diseases, Academic Medical Centre Amsterdam, the Netherlands, ³Department of Infectious Diseases and ⁹Julius Centre for Health Sciences and Primary Care, University Medical Centre Utrecht, the Netherlands,

National antibiotic policy?

Inventory Hospital Antibiotic Policy
Committees (2003):

- Need for national antibiotic “booklet”
- Easily accessible

CustomID - Microsoft Internet Explorer

BestandBewerkenBeeldFavorietenExtraHelp

Vorige

Zoeken

Favorieten

Adres <http://customid.duhs.duke.edu/NL/Main/Start.asp>

Ga naar

Koppelingen

SWAB

Stichting Werkgroep AntibioticaBeleid

zoek

THERAPIE

PROFYLAXE

ANTIMICROBIELE MIDDELEN

OVERIGE

Home >>> ...

June 8, 2006



Welkom bij SwabID

Welkom bij het Nationale AntibioticaBoekje van de SWAB!

De SWAB, de Stichting Werkgroep AntibioticaBeleid, heeft een nationaal antibiotica boekje samengesteld, waarin adviezen worden gegeven voor therapie en profylaxe van de gangbare infectieuze ziektebeelden, en waarin ook de belangrijkste eigenschappen van alle antimicrobiële middelen te vinden zijn. De ziektebeelden zijn in principe gerangschikt op 'orgaansysteem'. Voor die gevallen waar dit niet het gezochte ziektebeeld oplevert, biedt de 'zoek' knop meestal wel uitkomst.

De adviezen zijn gebaseerd op de bestaande nationale evidence-based richtlijnen en het beleid in de opleidingsziekenhuizen. Klik hier voor [de verantwoording van de wijze van totstandkoming](#)

Er is een web-versie van het nationale boekje, en er is de mogelijkheid deze te downloaden naar PDA/pocket PC. De wijze waarop u dit kunt doen vindt u hieronder.

Eventuele suggesties kunt u sturen aan: secretariaat@swab.nl

BEGIN
Download voor PDA

HIER MET
Wireless PDA

SWAB ID
Webversie

SWAB
Click for website www.swab.nl

E-Mail The Editors

Internet

CustomID - Microsoft Internet Explorer

Bestand Bewerken Beeld Favorieten Extra Help

Vorige Zoeken Favorieten

Adres <http://customid.duhs.duke.edu/NL/Main/Start.asp> Ga naar Koppelingen

amC Academisch Medisch Centrum

Home | Samenstellers | Disclaimer | Author Login | Index

zoek THERAPIE PROFYLAXE ANTIMICROBIELE MIDDELEN OVERIGE

Home >>> June 8, 2006

Welkom bij SwabID

Welkom bij het Nationale AntibioticaBoekje van de SWAB!

De SWAB, de Stichting Werkgroep AntibioticaBeleid, heeft een nationaal antibioticadviezen worden gegeven voor therapie en profylaxe van de gangbare infectieuzen. De belangrijkste eigenschappen van alle antimicrobiële middelen te vinden zijn. De gerangschikt op 'orgaansysteem'. Voor die gevallen waar dit niet het gezochte zieknop meestal wel uitkomst.

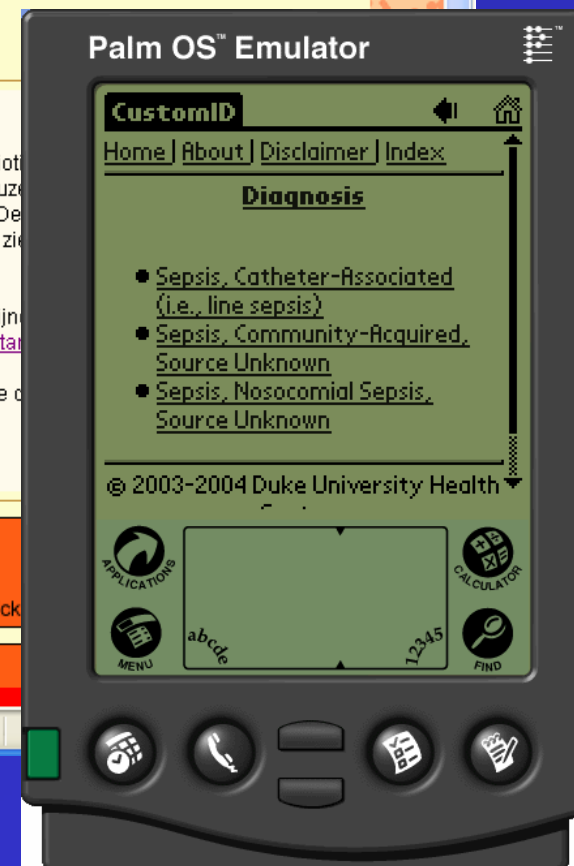
De adviezen zijn gebaseerd op de bestaande nationale evidence-based richtlijn opleidingsziekenhuizen. Klik hier voor [de verantwoording van de wijze van totstandkoming](#).

Er is een web-versie van het nationale boekje, en er is de mogelijkheid deze te downloaden. De wijze waarop u dit kunt doen vindt u hieronder.

Eventuele suggesties kunt u sturen aan: secretariaat@swab.nl

BEGIN Download voor PDA
HIER MET Wireless PDA
SWAB ID Webversie

E-Mail The Editors




















Guideline Development – practical issues

- systematic review of the literature
- “other considerations”
- stakeholder involvement
- implementation strategies
- updating the guideline and evaluation

[What do we do](#)
[Who we are](#)
[Guidelines](#)
[Contact us](#)
[Newsarchive](#)

Guidelines

SWAB has issued a number of guidelines on antibiotic treatment. Several of these have been published in English:

	Subject	Year	Guideline (Dutch)	Guideline (English)	Publ. NTvG (Dutch)	Publ. NethJMed (English)	Comment
XIV	Draft guideline Sepsis	2010					
XII	Invasive fungal infections	2008					
XI	MRSA-carriers	2007			ntv <i>g</i>		
X	Complicated urinary tract infections	2006			ntv <i>g</i>		
IX	Acute infectious diarrhoea	2005	 <small>logo SWAB klein</small>		ntv <i>g</i>	<small>NethJ Med The Journal of Medicine</small>	
VIII	Community-acquired pneumonia	2005			ntv <i>g</i>	<small>NethJ Med The Journal of Medicine</small>	
VII	Infectious endocarditis	2003			ntv <i>g</i>	<small>NethJ Med The Journal of Medicine</small>	1 2
VI	Selective decontamination	2001			ntv <i>g</i>		
V	Perioperative antibiotic prophylaxis	2000			ntv <i>g</i>		
IV	Sepsis	1999			ntv <i>g</i>		ntv <i>g</i>
III	Bronchitis	1998			ntv <i>g</i>		
I	General	1998			ntv <i>g</i>		