ANTIMICROBIAL STEWARDSHIP:
THINK GLOBALLY AND INTERDISCIPLINARILY

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Brief background

- Topic of research
- Academic track
- Not easy to find an interdisciplinary research team in France
- ESCMID networking and international perspective
  - And particularly ESGAP
3 main strategies to curb resistance

AMS
All settings, all professionals

Infection control
Environment

Vaccination

One Health approach
Stewardship is intrinsically interdisciplinary and global

- My research team in Nancy since 2015:
  - Medical doctors: infectious diseases, microbiology, public health, general practice
  - Pharmacists
  - Nurses
  - Sociologists
  - Psychologists
  - Law specialists
  - Biostatisticians

  Collaboration with dentists

  Regional, national, international collaborations
  (researchers, professional organisations, health agencies)
Classic approach

- **Practices**
  - Assess practices

- **Determinants**
  - Study the determinants of the behaviour of interest

- **Intervention**
  - Design interventions to improve practices, based on theories of behaviour change and using complex interventions’ methodology
AMS IN HOSPITALS
Antibiotic misuse: a prospective clinical audit in a French university hospital

C. Pulcini • E. Cua • F. Lecuiter • L. Landraud • F. Dellamonica • P. M. Roger

Design, Measurement, and Evaluation of an Education Strategy in the Hospital Setting to Combat Antimicrobial Resistance
Theoretical Considerations and a Practical Example

Céline Pulcini,1 Sally Crofts,2 Diane Campbell2 and Peter Davey1
Design of a ‘day 3 bundle’ to improve the reassessment of inpatient empirical antibiotic prescriptions

Céline Pulcini¹,²,*, Sylviane Defres³, Ila Aggarwal³, Dilip Nathwani³ and Peter Davey²,³

Impact of an intervention designed to improve the documentation of the reassessment of antibiotic therapies in an intensive care unit

C. Pulcini a,*, b, c, J. Dellamonica b, d, G. Bernardin b, d, N. Molinari e, A. Sotto c, f
A 6-year antifungal stewardship programme in a teaching hospital

V. Mondain · F. Lieutier · L. Hasseine · M. Gari-Toussaint · M. Poiree · C. Lions · C. Pulcini


Impact of a computerized decision support system on compliance with guidelines on antibiotics prescribed for urinary tract infections in emergency departments: a multicentre prospective before-and-after controlled interventional study

Elisa Demonchy1,2, Jean-Charles Dufour3,4, Jean Gaudart3,4, Emmanuel Cervetti3, Pierre Michelet6, Nicolas Poussard7, Jacques Levraut1,8 and Céline Pulcini1,2,*
AMS IN PRIMARY CARE
Approaching the quality of antibiotic prescriptions in primary care using reimbursement data

C. Pulcini · C. Lions · B. Ventelou · P. Verger

Indicators show differences in antibiotic use between general practitioners and paediatricians

C. Pulcini · C. Lions · B. Ventelou · P. Verger
Perceptions and attitudes of French general practitioners towards rapid antigen diagnostic tests in acute pharyngitis using a randomized case vignette study

Céline Pulcini\textsuperscript{1-3*}, Laure Pauvif\textsuperscript{3-5}, Alain Paraponaris\textsuperscript{3-5}, Pierre Verger\textsuperscript{3-5} and Bruno Ventelou\textsuperscript{3-6}

Cross-sectional survey: risk-averse French GPs use more rapid-antigen diagnostic tests in tonsillitis in children

Audrey Michel-Lepage, Bruno Ventelou, Antoine Nebout, et al.

BMJ Open 2013 3:
doi: 10.1136/bmjopen-2013-003540
How can we improve antibiotic prescribing in primary care?

Oliver J. Dyar, Bojana Beović, Vera Vlahović-Palčevski, Theo Verheij and Céline Pulcini on behalf of ESGAP (the ESCMID [European Society of Clinical Microbiology and Infectious Diseases] Study Group for Antibiotic Policies)
AMS in LTCFs

REVIEW

Strategies and challenges of antimicrobial stewardship in long-term care facilities

O. J. Dyar¹, L. Pagani² and C. Pulcini³,⁴

Clin Microbiol Infect 2015; 21: 10–19
CROSS-CUTTING THEMES
Junior doctors’ knowledge and perceptions of antibiotic resistance and prescribing: a survey in France and Scotland

Clin Microbiol Infect 2011; 17: 80–87

How to educate prescribers in antimicrobial stewardship practices

Céline Pulcini and Inge C. Gyssens

European medical students: a first multicentre study of knowledge, attitudes and perceptions of antibiotic prescribing and antibiotic resistance

Oliver J. Dyar, Céline Pulcini, Philip Howard and Dilip Nathwani on behalf of ESGAP
Selective reporting of antibiotic susceptibility data improves the appropriateness of intended antibiotic prescriptions in urinary tract infections: a case-vignette randomised study

C. Coupat • C. Pradier • N. Degand • P. Hoffiger • C. Pulcini
CONCLUSIONS
Research is not enough to change practice...

- Communication strategy:
  - With the public
  - And with health agencies
What I have learned

• Having fun, working with nice people and doing something (perceived as) useful makes research efforts sustainable (for me)

• Networking and sharing are key
  • Global and international approach
  • Interdisciplinary contacts are extremely enriching

• The ESCMID and ECCMID offer fantastic opportunities
Interested in AMS... Join ESGAP!
Thanks for your attention!

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