

Strategies to Implement AMS

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How to implement

1- Engage

2- Educate

3- Execute

4- Evaluate

5- Provide Feedback

Modified from Klompas M, et al. ICHE 2014;35:S133-S154

Engage

Develop a multidisciplinary team

Setting goals, define steps and monitor progress.

Programs developed by multidisciplinary teams increase adherence

Include core representatives (including residents)

Include external experts (e-g-, pharmacists)

Engage

Involve local champions

- Identify local champions, including informal leaders
- Local champions engage stakeholders, encourage improvement
- Local champions match local culture

Engage

Utilize peer networks

- Horizontal networking of peers across hospitals increase compliance with evidence-based best practices
- Voluntary peer networks increase compliance to specific goals
- Comparing process and benchmark help to understand local strenghts and weaknesses

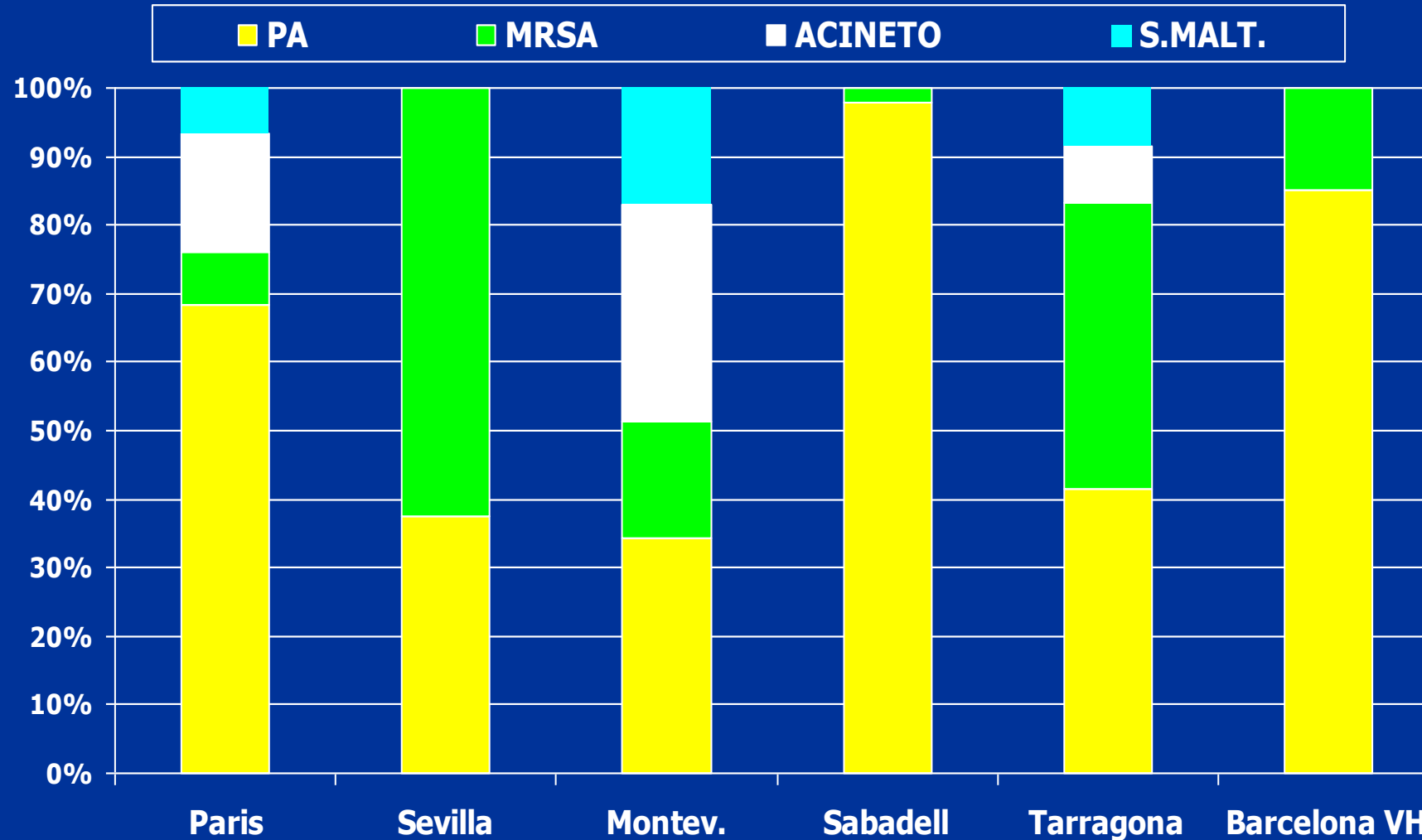
Educate

Provide local information

- Clinicians should know expected organisms identified in surveillance programmes
- It includes main mechanisms of resistance
- Focus on ESKAPE organisms

PREDICTING CAUSATIVE ORGANISM

(>7 DAYS + PRIOR ATB)



Modified from RELLO J et al. AJRCCM 1999;160:608-613

Educate

Provide educations sessions

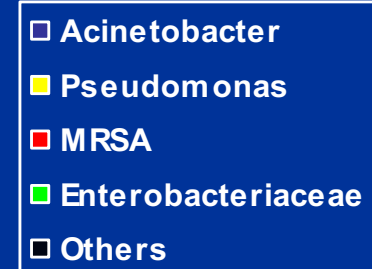
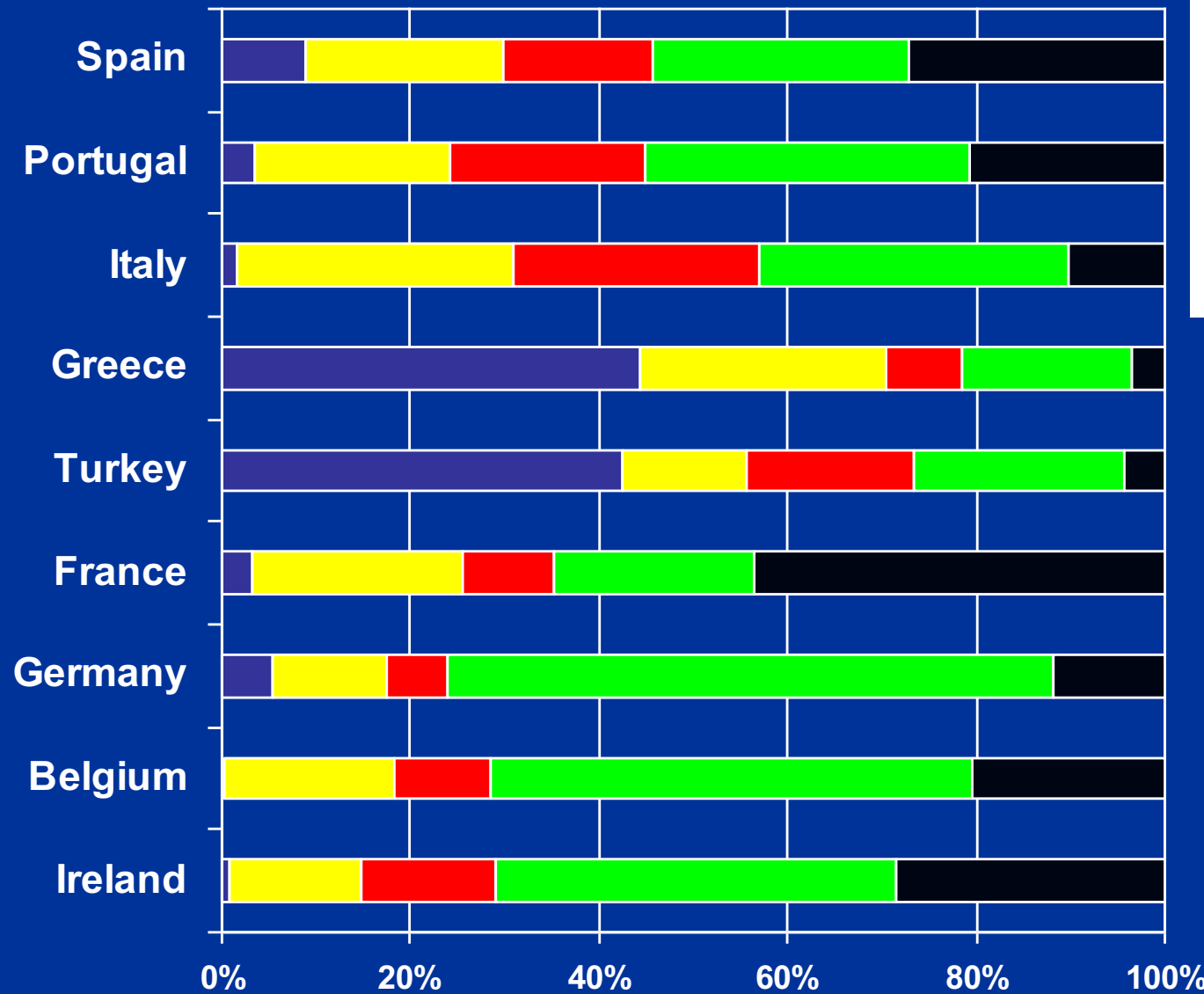
- Help summarize evidence, explain new processes and encourage to adopt recommended practices.
- It includes workshops, hand-on trainings, confeences, slide presentations and interactive discussions.
- Both local champions and topic experts should be involved

Educate

Educational sessions

- They should be informative and relevant to the learner.
- It is important to have multidisciplinary educational programmes customized for different specialities and countries
- Both local champions and topic experts should be involved !

VAP: PATHOGENS BY COUNTRY



Educate

Provide educational materials

- Material should summarize evidence, support self-study, and remind staff about new practices
- Include pocket cards, brochures, posters, fact sheets, daily guides, CPG summaries, flow sheets and 1-page bulletins.
- Local material is important

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Therapy of ventilator-associated pneumonia

A patient-based approach based on the ten rules of “The Tarragona Strategy”

Tarragona Strategy

1. Start antibiotic therapy immediately
2. Antibiotic choice can be targeted, in some cases, on staining
3. Modify prescription in light of microbiologic findings
4. Prolonging antibiotics does not prevent recurrence
5. Patients with COPD or 1 wk of intubation should receive combination therapy - risk of *P. aeruginosa* VAP
6. MRSA not expected in absence of ATB exposure; MSSA strongly suspected in comatose patients
7. Therapy against yeast is not required
8. Vancomycin administration for Gram-positive pneumonias associated with very poor outcomes
9. Choice of agent should avoid agents with previous patient exposure
10. Guidelines - regularly updated and customized

How to Implement?

To Identify effective interventions

- Education

II. Is Didactic Education a Useful Antibiotic Stewardship Intervention for Reducing Inappropriate Antibiotic Use?

Recommendation

2. We suggest against relying solely on didactic educational materials for stewardship (*weak recommendation, low-quality evidence*).

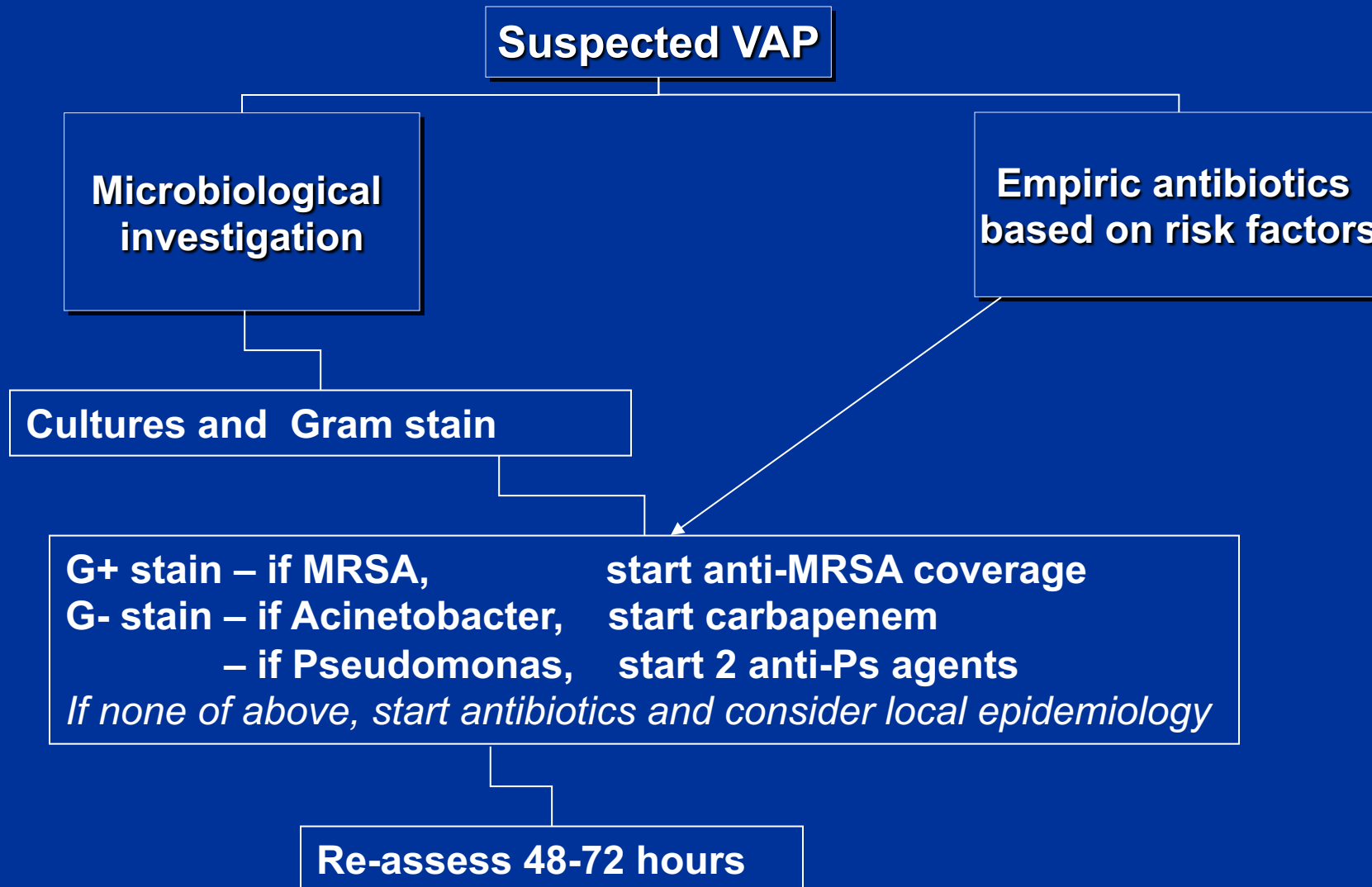
Table 7. The Golden Rules of Antimicrobial Prescribing “MINDME”.

M	Microbiology guides therapy wherever possible
I	Indications should be evidence based
N	Narrowest spectrum required
D	Dosage appropriate to the site and type of infection
M	Minimise duration of therapy
E	Ensure monotherapy in most cases

Adapted from Antibiotic Expert Group. Therapeutic guidelines: antibiotic. Version 14. Melbourne: Therapeutic Guidelines Limited; 2010.



Treatment Decision Tree for VAP



Execute

Standardize care processes

- Daily multidisciplinary rounds are widely advocated
- Rounds should follow a structured format
- Include discussion on patients' goals, what resource or actions are required and identification of potential barriers or safety issues.

Tarragona Strategy

- Key questions to address:
 - when to start antibiotics
 - how microbiological tests determine antibiotic changes (de-escalate)
 - dose and duration
 - what microorganisms should be covered
 - the choice of the initial agent

Execute

Create Redundancy

- Build redundancy or independent checks into delivery processes to remind staff about new practices
- Daily goals in patients rooms and pre-printed checklists.
- Automatic request for re-assessment within 72 hours and 1 week

Execute Antibiotic Care Bundles

- State of the Art of Antimicrobial Stewardship
- Group of key evidence-based or logical actions
- If delivered together, have a greater clinical impact than if delivered individually
- Could serve as the pillars of any antibiotic stewardship program

Implement Antibiotic Care Bundles

Optimal Dose

- Critically ill Patients
 - ▣ Increased frequency of hepatic and renal dysfunction
 - ▣ Unrecognized immune dysfunction
 - ▣ Predisposition resistant organisms
 - ▣ **INCREASED VOLUME OF DISTRIBUTION**
 - Suboptimal drug levels
 - Higher dose of ATB

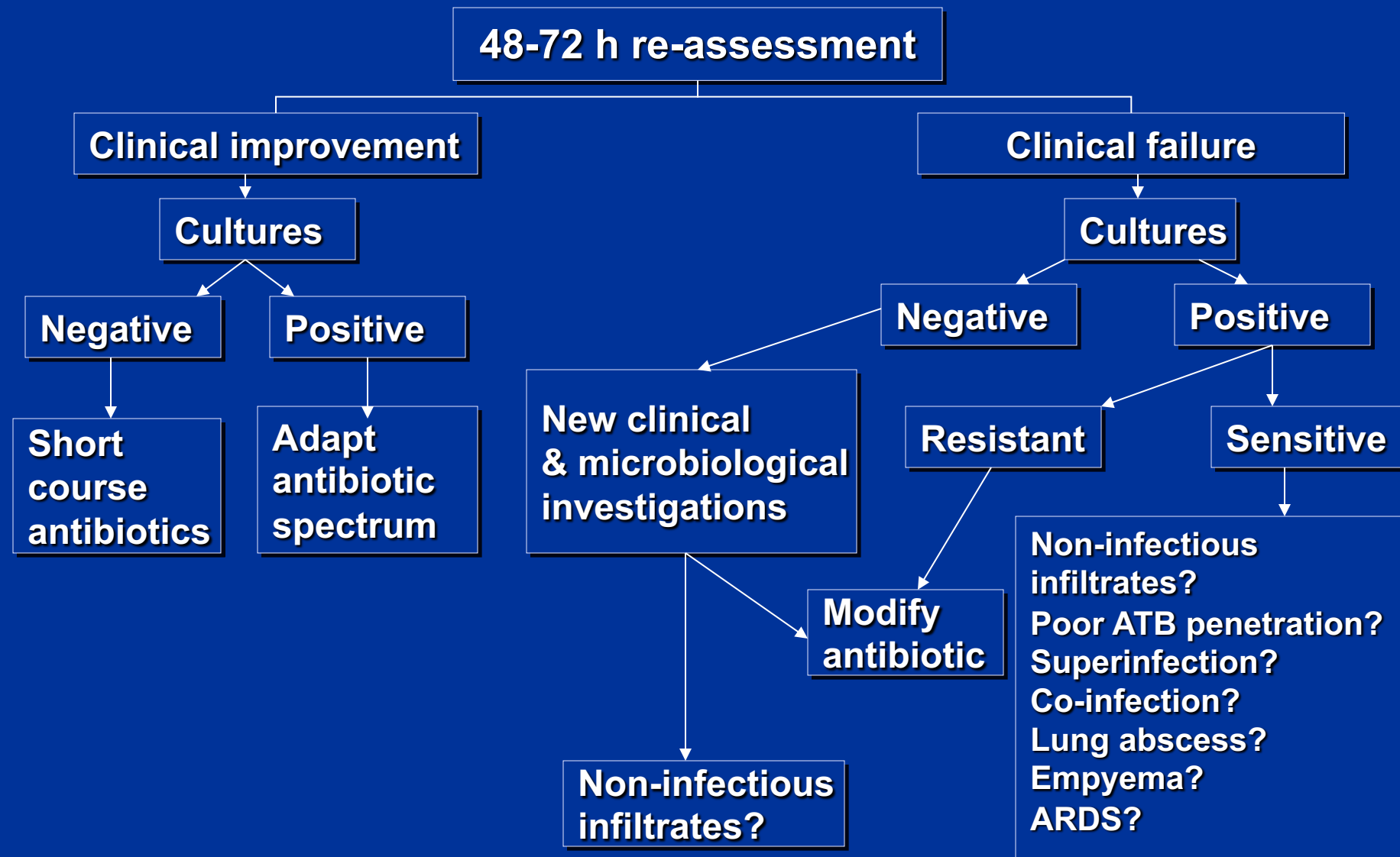
Antibiotic Care Bundles

1. Clinical Rational
2. Cultures
3. APPROPRIATE ATB
4. ADEQUATE ATB
5. Focus control



6. **RE-EVALUATE 24-48H**

Treatment Decision Tree for VAP



Evaluate Measure Performance

- Build redundancy or independent checks into delivery processes to remind staff about new practices
- Daily goals in patients rooms and pre-printed checklists.

NEUMONIA - Microsoft Internet Explorer

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Atrás

Búsqueda

Favoritos

Direcciónhttp://www.seguretatpacient.org/cuestionarios/neumonia2/ IrVínculos

Aliança per a la
Seguretat dels Pacients

Audit de Compliància a Implementar pel Coordinador/a de Torn (Prèvis 24 h)

Generalitat de Catalunya
Departament de Salut

> Box 1

> Box 2

> Box 3

> Box 4

> Box 5

> Box 6

> Box 7

> Box 8

> Box 9

> Box 10

> Box 11

> Box 12

> Box 13

> Box 14

> Estadístiques

> Calendari

> Sortir

Centre - Hospital: HOSPITAL U. DE TARRAGONA JOAN XXIII Codi: **

BOX 1

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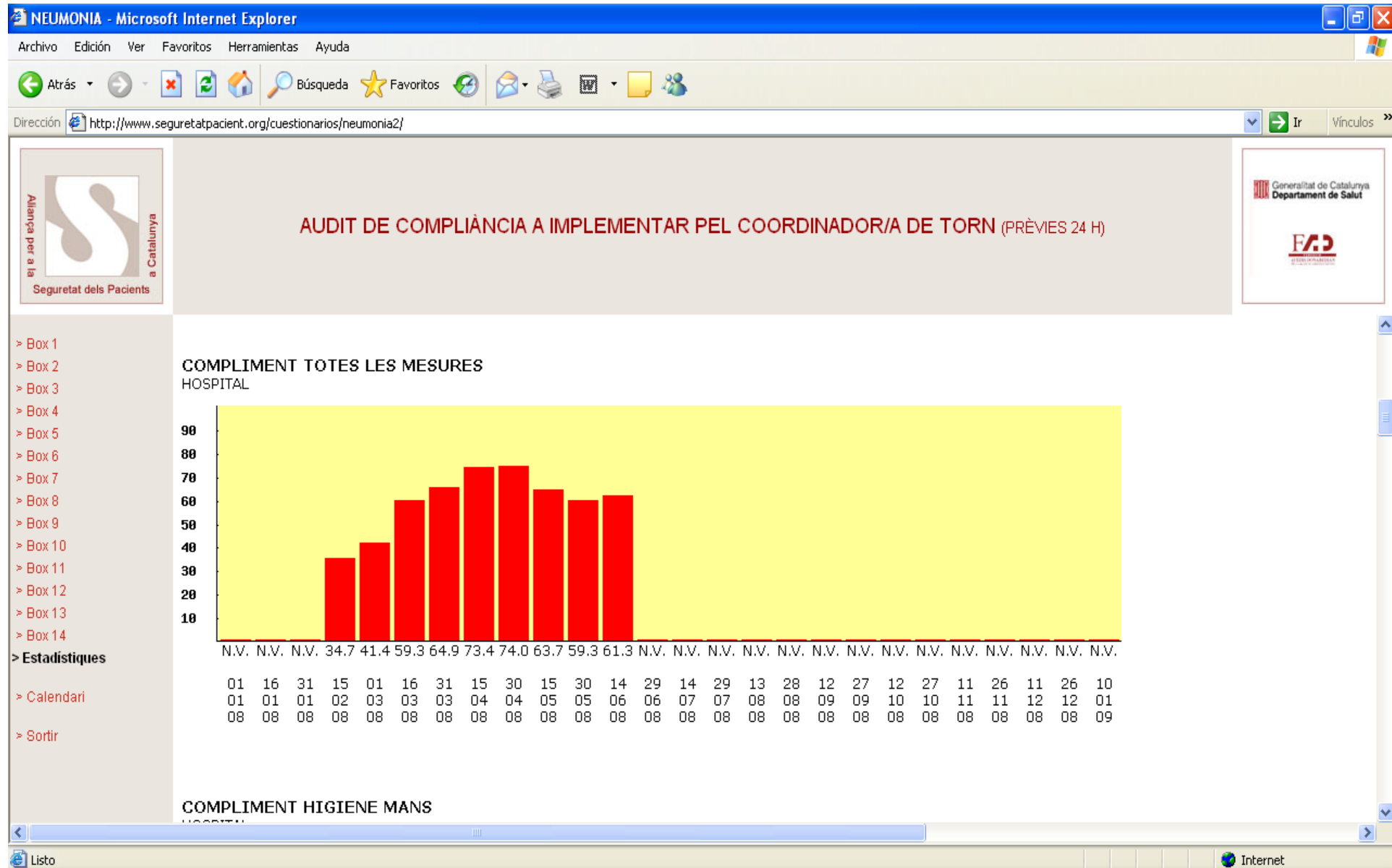
ListoInternet

Evaluate Measure Performance

- Use frequent formal and informal audits of clinical practice.
- Measuring process and outcomes rewards changes in behavior
- Evaluating performance provides an ongoing, real-time image of implementation
- Areas of poor compliance can be rapidly identified and rectified
- Gain additional insights into barriers to implementation.
- Use your analyses to develop strategies and to improve practice

Provide feedback

- It can be provided via emails, displays or during meetings
- It helps to maintain staff motivation and can boost adherence to new processes.
- Helps to appreciate how efforts impact performance (rates) and patients' outcomes
- It helps pinpoint new areas for improvement
- It marks successful transitions to new standards of care



How to implement

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2- Educate

3- Execute

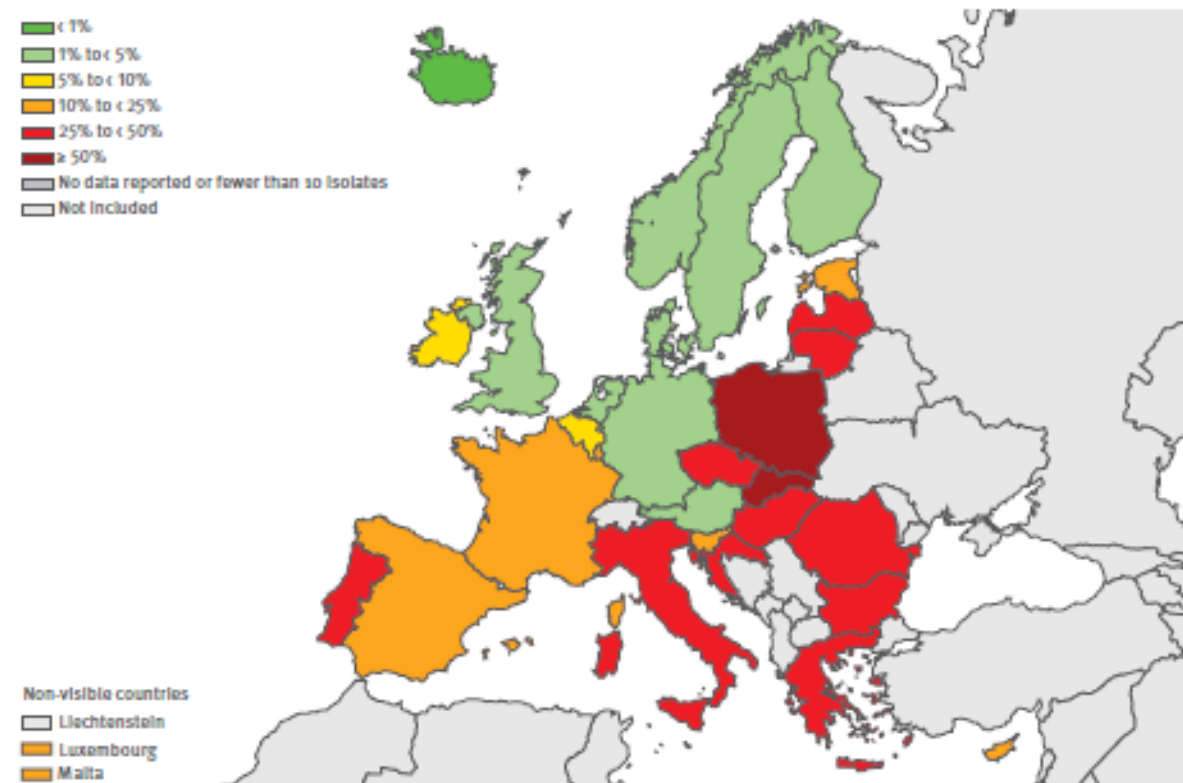
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Antimicrobial Stewardship

Figure 3.10. *Klebsiella pneumoniae*. Percentage (%) of invasive isolates with combined resistance to fluoroquinolones, third-generation cephalosporins and aminoglycosides, by country, EU/EEA countries, 2015





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