“Awesome takes practice”

Tips on feeding, nurturing and growing your AMS garden

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Clinical Infectious Diseases
IDSA GUIDELINE

Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America

Barlam TF, Cosgrove SE, Abbo LM, et al. Clin Infect Dis. 2016;62:e51-e77.

Stewardship needs to be integrated into the hospital's culture

ID specialists need to guide strategies that have been shown to work

"Cornerstone" AMS interventions

- **Preauthorization of broad-spectrum antibiotics** before prescribed **AND / OR**
- **Prospective audit & feedback review -** engage prescribing clinicians @ 2-3 days

Syndrome-specific interventions

- **focused interventions, rather than all at once**
- **measure results**

UTIs, pneumonia, SSTIs (iv → oral, ↓ duration),

Rapid diagnostics

- **respiratory viral tests, blood cultures, but guided by AMS teams for benefit**
- **reducing antibiotics associated with *C.difficile* infection**

Other measures

- **antibiotic time-outs, computerized clinical decision support**

relying solely on passive education will not sustain AMS

more research needed to determine which AMS programmes actually work

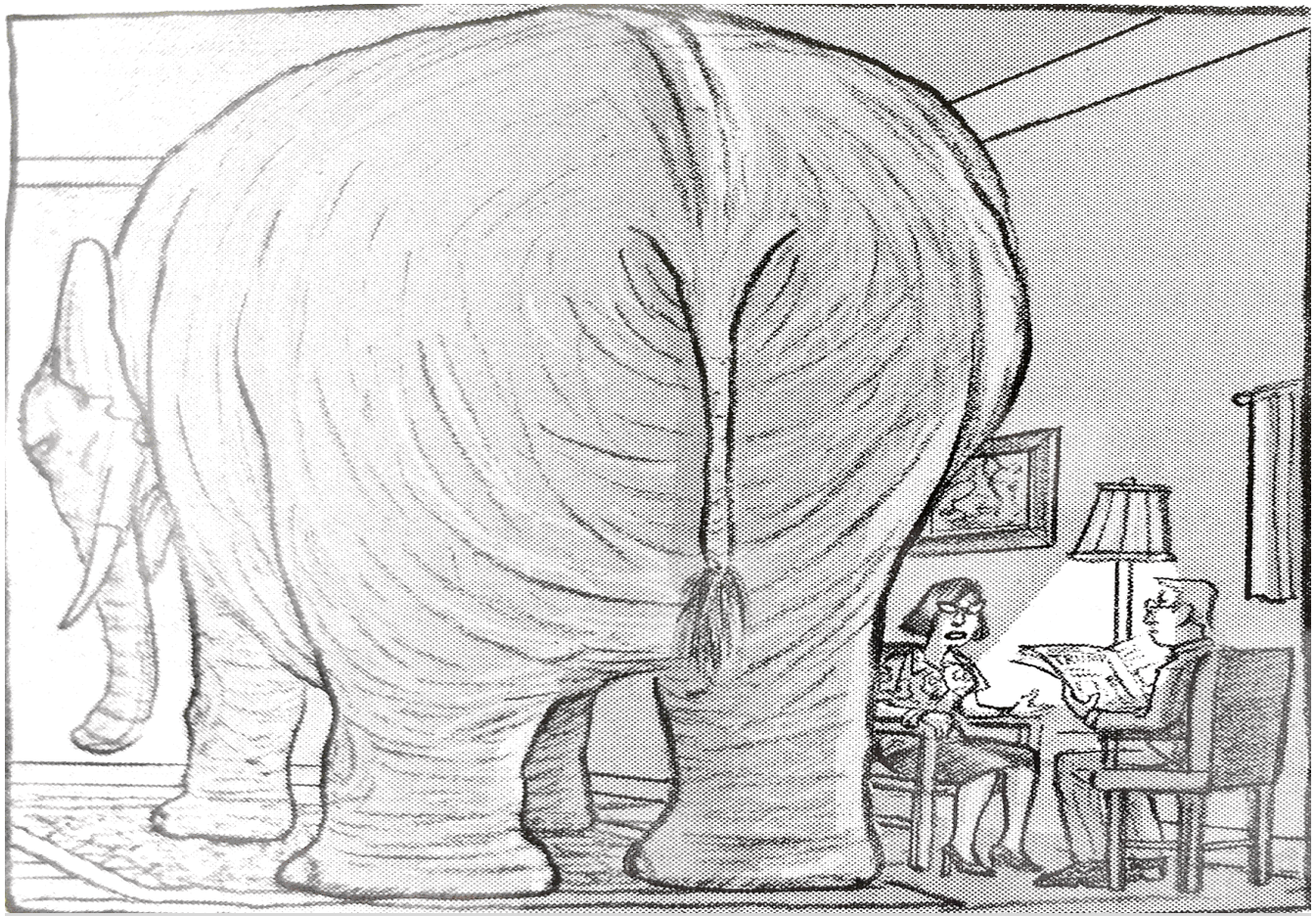
- **Evidence we can reduce unnecessary antibiotic use through a range of actions**
- **Utility of interventions varies by institution, population served, people, resources and administrative support**

but also..

- **AMS is all about selling a common objective; massaging behaviour and personalities & local culture, can empower or diminish AMS programmes**

“Culture eats policy for breakfast”. “Culture is much more. You can change policy overnight. You can’t change culture overnight.”

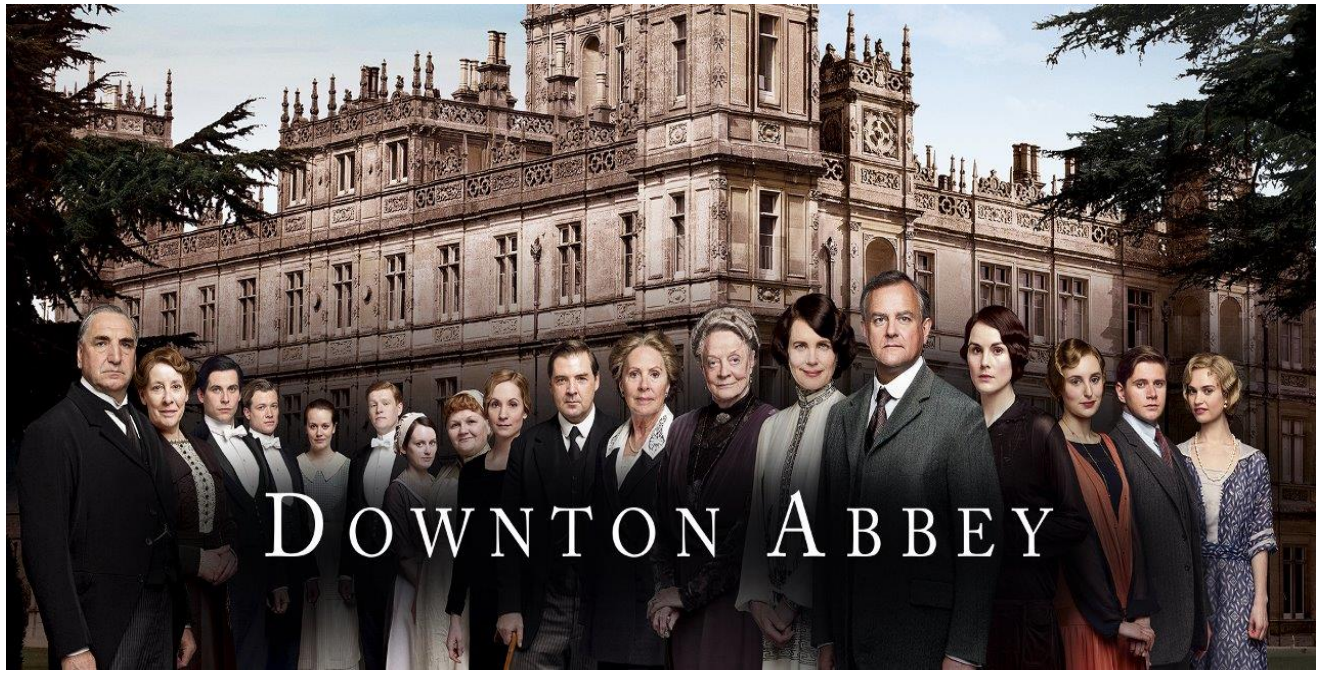
.... *said Transportation Commissioner Polly Trottenberg, from Massachusetts:*



“It’s your metaphor, you feed it”

1. General

- **AMS accreditation and performance indicators**
  – stewardship succeeds when linked to quality activities & administration is engaged
- AMS needs to resonate both with senior physicians/surgeons & with junior doctors

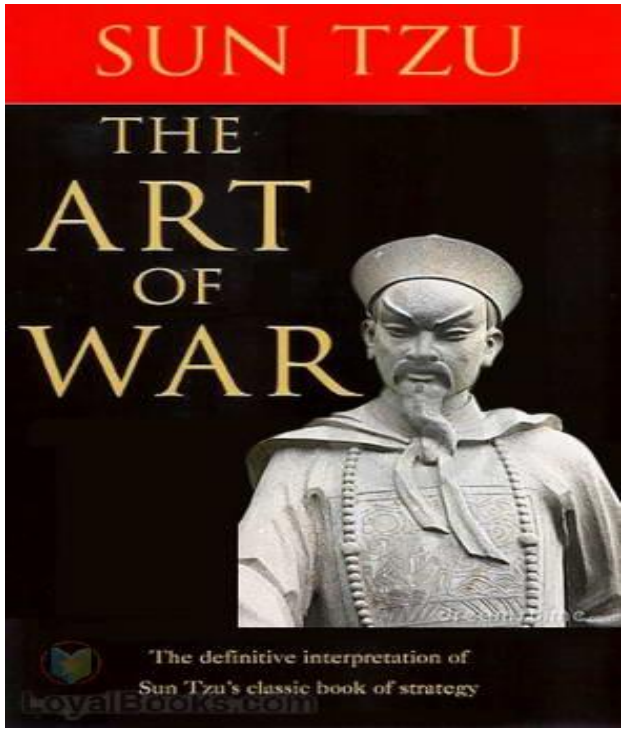


- considering competing interests, personalities and hierarchies within institutions, these groups need to see value in the programme to support it
- personalities matter; a good AMS program has a lot to do with: access, approachability, support for JMOs,

  and retailing skills, humour, goodwill, persistence, & a thick skin
  …… than just the software and programmes in place

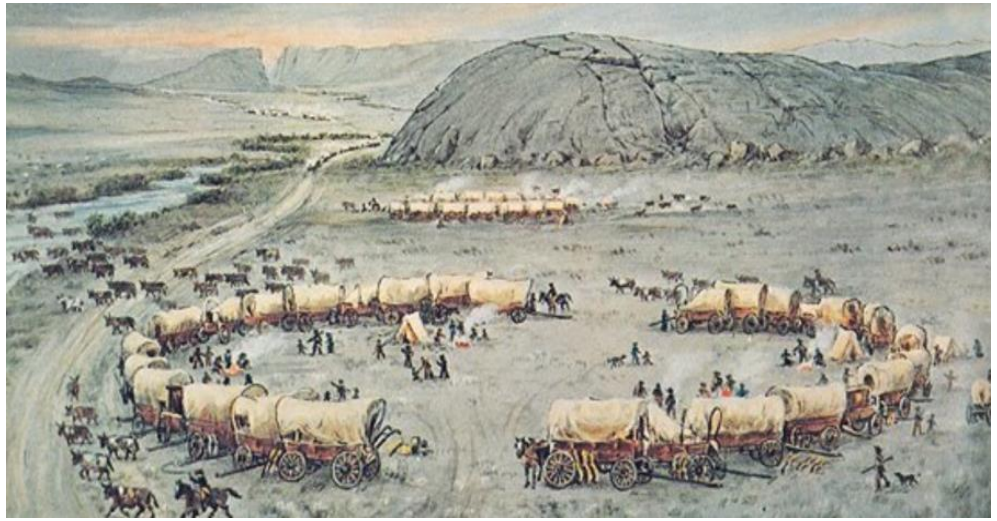
Need to develop shared ownership and accountability of the hospital's varied antibiotic users

- needs to be inclusive,
  perceived as helpful in guiding care
- where possible avoid: them vs. us
  (divisions between AMS and other clinical groupings)
  - some individual battles are unavoidable
  - some skirmishes can be sacrificed
    .. but not the war



The supreme art of war is to subdue the enemy without fighting
Know thy self, know thy enemy. A thousand battles, a thousand victories
Sun Tzu. The Art of War

2. The AMS Committee



- For committee, choose enough devotees and a few “recalcitrants”
- Even if fail to sway the latter, it can be entertaining
- Try to include policy decision makers: effector arm
  - Conflict resolution when neutral AMS face needed
- Know who supporters are, different in each hospital
  Try not to upset them. They come in handy
- Plan for at least some early short-term wins
- VMOs pay lip service, but often struggle to get past individual patients’ needs
- Circle your wagons with staffies

3. Guidelines

- Be inclusive in local guideline development
- Local guidelines can be powerful for local engagement & shared ownership
- Allows massaging of personal relationships and defuses the “them vs. us” or vertical aspect of AMS guidelines
- Stop the group focusing on minutiae – fine points pondered over endlessly but hardly noticed in real life
- Respiratory Unit and ED the litmus tests
- May need a roadshow to capture hidden prescribers (we keep failing)
- Maintain guideline visibility (?) and seek feedback

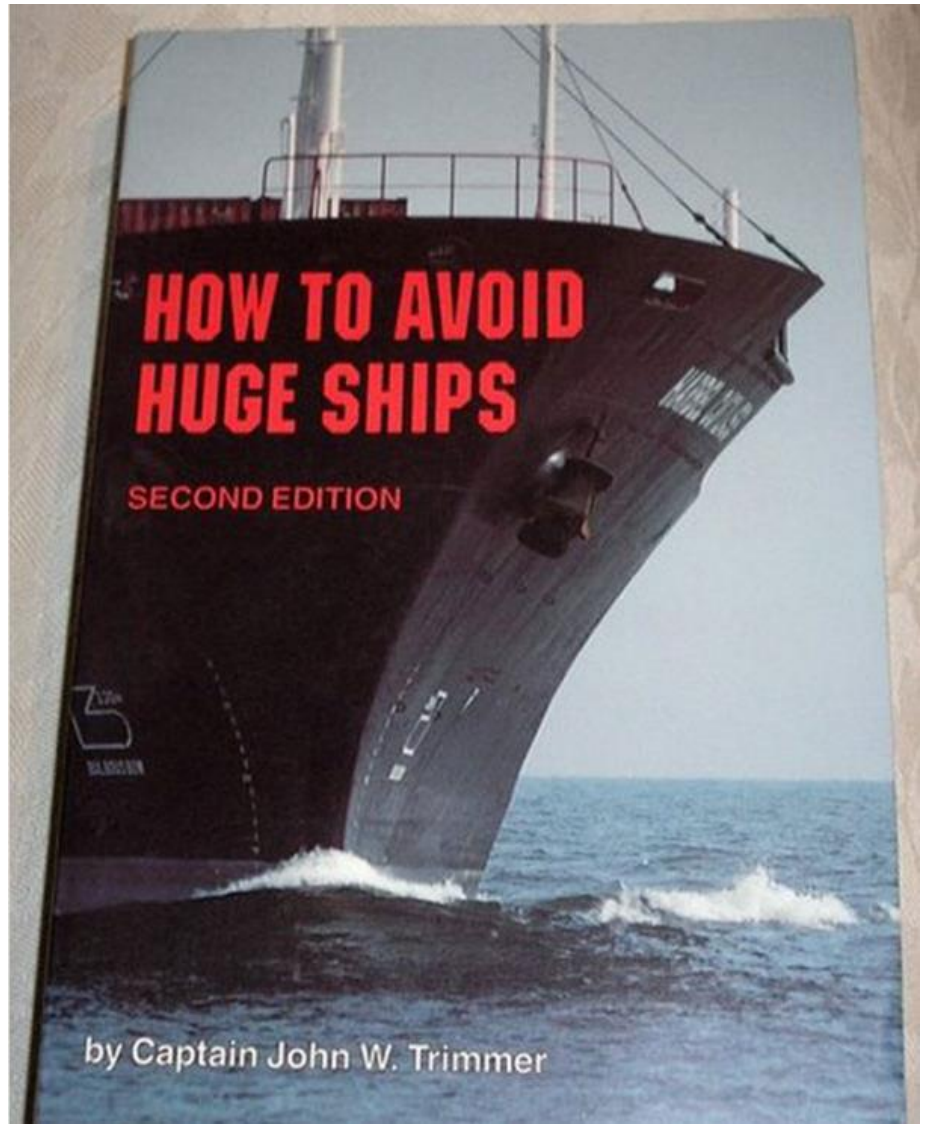
3. Guidelines

- External guidelines useful - set standards
- Like truth is relative, so are guidelines
  Sometimes complexity is ignored
  by need to distill a simple message

- Can be problematic if intersect
  with local approaches or initiatives
  eg. cellulitis, vertebral osteomyelitis, bites
- Guidelines are great to hide behind
  if about to be savaged by a pack of lions.

4. Selling AMS

- **Pandering to egos:**
  know your personalities
  - physicians like to (mis)quote evidence,
  - surgeons dwell on anecdotes.
- **Both stoke different ego aspects**
  – former will quote obscure data,
  the latter that one fascinating case 15 years ago
- **having the right data can be powerful but use with caution**
- ***'Data is the plural of anecdote'***



4. Selling AMS (dealing with repetition)

'Cleopatra' Pinball by D. Gottlieb & Co.

- Selling 'The Message' can be seen as an arcade (pinball) game
- Maintain focus. Humour your losses.
  If in doubt start a new game. Skills and reaction time improve
  Sometimes you score a free game. Elation!!
- [Like a game of space invaders]
  Be prepared for repetition and attacks
  Most can be blocked, some get through

- People come with new out of left field with "*wtf ideas*"
- These can set back programme you spent ages building up
  - new consultant, trainees from St. Elsewhere
  - a new whacko renal guideline, macrolide anti-inflammatory use in ENT bathing grafts in …, antibiotics in pain relief
- Constantly asked for AMS to prove why aberrant practice is not OK;
  - instead should require sound evidence from teams to justify behaviour

5. Behaviour aspects (dealing with prescribing habits)

'The road to hell is paved with good intentions'

attr: Saint Bernard of Clairvaux

- In fairness most doctors want best for their patients, and want to do the right thing ("just in case prescribing")

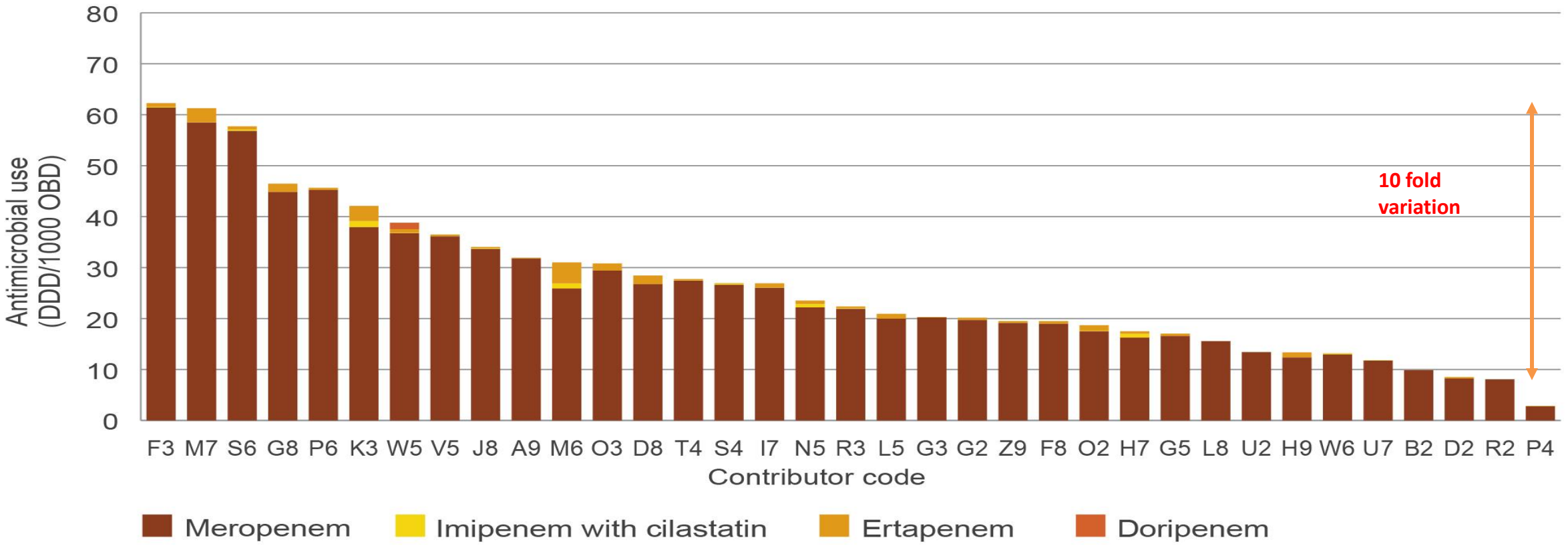
- Hence useful to establish common ground
- For many, cause of resistance is societal prescribing (everyone else's), but their own is excluded from critical appraisal

5. Behaviour (dealing with prescribing habits)

- Choose your battles
- Do not stake yourself to something unless it is absolutely incontrovertible or a religious ecstasy.
- ie. being burnt at the pyre á la Joan of Arc
  is a bad way to go
  (though martyrdom is impressive in others)
- passion good, fanaticism less so

6. Antibiotic Restriction Programmes

Figure 6.1 Carbapenem use in principal referral hospitals, 2014–15



DDD/1000 OBD = defined daily doses per 1000 occupied-bed days

Source: National Antimicrobial Utilisation Surveillance Program

6. Antibiotic Restriction Programmes

- There are still benefits to a rotational paging type approval
- Especially when linked to advice, JMO support
  rather than just controls; and not seen as a barrier
- Makes AMS, ID visible. Linked-in, non adversarial
- Given opportunity, sometimes the most
  clever people do the stupidest things.
  It can be truly astonishing

7.Communication and accountability

- KISS principle. RMOs do not handle complex or mixed messages. MDs will go for a short cut if message too long.
- Messages short, clear, firm but not rigid
  Uncertainty is the enemy.
- Beware of inconsistency in our own (ID) ranks.
  Undermines the message, even when evidence-free
  (eg treatment duration, IV vs. oral)
- Worth discussing our own (ID) contribution to the antibiotic spiral & how to truly measure appropriateness?
- Recognise things change

duration of therapy recommendations		2012	2016
Community-acquired pneumonia		7 days	3-5 days
Health care-acquired pneumonia	10-15	8 days	≤ 8 days
Skin and soft tissue infections	10 days	5 days	5-6 days
Urinary tract infections - Cystitis - Pyelonephritis - Catheter-associated	10-14	 3-5 days 7-14 days ≥7 days	5-7 days
Staph aureus bacteraemia - low risk of complications - high risk of complications		 2 weeks 4-6 weeks	unchanged
Intra-abdominal infection	10	4-7 days	4 days
Surgical antibiotic prophylaxis	24-48 hours	1-2 doses (< 24 hours)	1-2 doses (< 24 hours)
Chronic osteomyelitis	84 days		42 days

Wlodover et al. Infect Dis Clin Pract 2012; 20:12-17
The New Antibiotic Mantra—"Shorter Is Better" Spellberg, JAMA Internal Medicine Sept 2016
http://archinte.jamanetwork.com/article.aspx?articleid=2536180

8. Audit & feedback

- Process, process….
- Outcomes come slowly, depend on effective processes & process measures
  Record what you can
- Doctors generally not good at process
- Assessing treatment regimens never easy as there often is some open debate, so…
- Target surgical prophylaxis as the first effort in an AMS programme as regimens & principles are fixed
  - “the low-hanging fruit”


Unknown artist, Rijksmuseum, Amsterdam

INVITED ARTICLE CLINICAL PRACTICE

Ellie J. C. Goldstein, Section Editor

Is the "Low-Hanging Fruit" Worth Picking for Antimicrobial Stewardship Programs?

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A new antimicrobial stewardship program can be overwhelmed at the breadth of interventions and education required to conduct a successful program. The expression "low-hanging fruit," in reference to stewardship, refers to selecting the most obtainable targets rather than confronting more complicated management issues. These targets include intravenous-to-oral conversions, batching of intravenous antimicrobials, therapeutic substitutions, and formulary restriction. These strategies require fewer resources and less effort than other stewardship activities; however, they are applicable to a variety of healthcare settings, including limited-resource hospitals, and have demonstrated significant financial savings. Our stewardship program found that staged and systematic interventions that focus on obvious areas of need, that is, low hanging fruit, provided early successes in our expanded program with a substantial cumulative cost savings of $832 590.

9. Teamwork

- You meet fantastic committed people along the way
- AMS teams can face burn-out
- Unlike clinical patient care, outcomes not clear-cut, message is repetitive and fatiguing
- AMS programmes need to ensure sustainability of their own staff,
  so the programme remains productive
- AMS is a long haul and requires constant reinvention