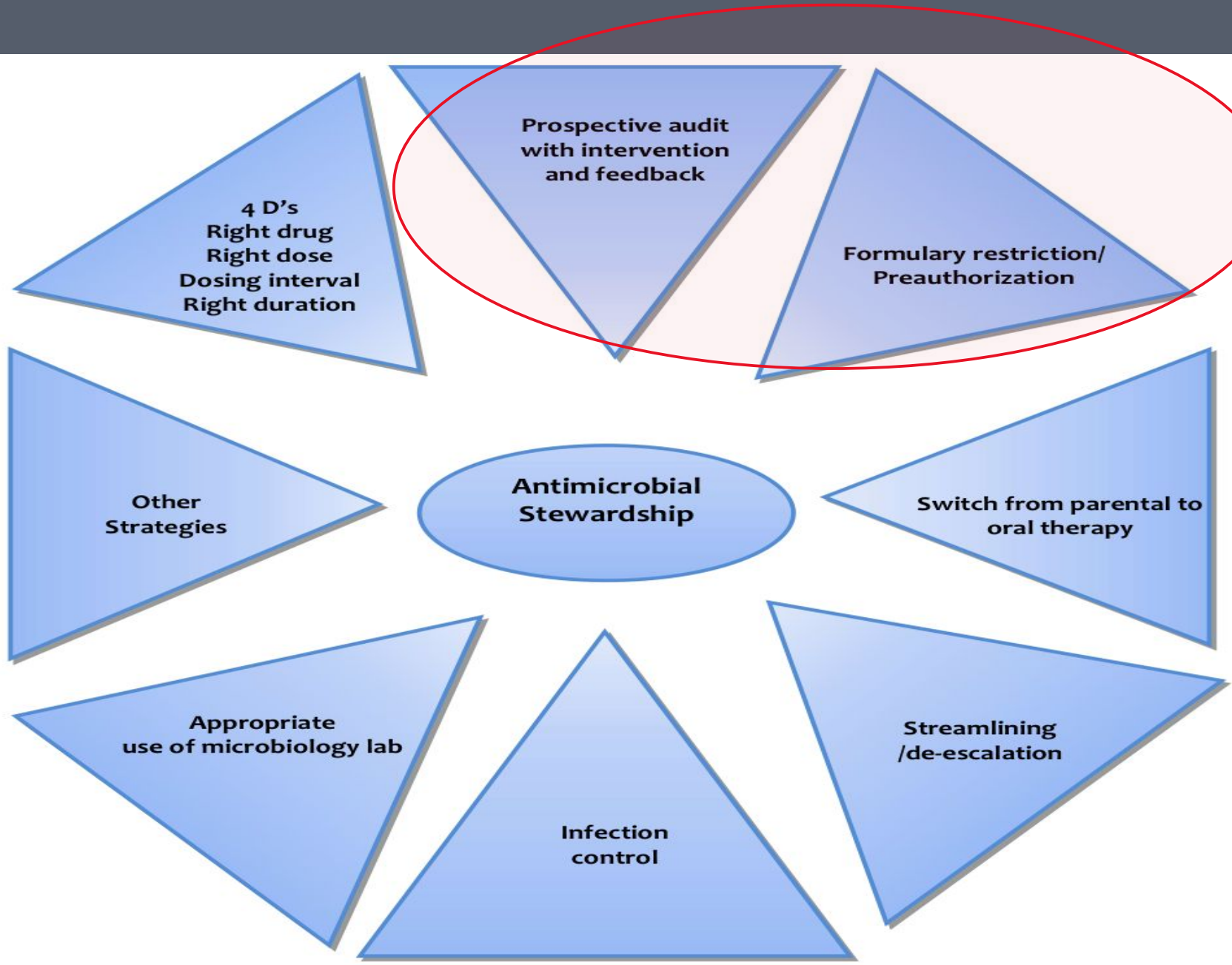
PROSPECTIVE AUDIT AND FEEDBACK


Prospective audit with intervention and feedback
Formulary restriction/ Preauthorization
4 D's
Right drug
Right dose
Dosing interval
Right duration
Other Strategies
Antimicrobial Stewardship
Switch from parental to oral therapy
Appropriate use of microbiology lab
Infection control
Streamlining /de-escalation

Two core ASP strategies

- Front-end strategies: where antimicrobials are made available through an approval process (formulary restriction and pre-authorization)
- Immediate reduction in use and expenditure of restricted antibiotics

- Back-end strategies: are where antimicrobials are reviewed after antimicrobial therapy has been initiated (prospective audit and feedback)
- Timely de-escalation of antibiotics
- Reduction in inappropriate use

Pre-authorization

- **Adv:**

- Reduces empiric initiation of inappropriate Abx

-Encourages early and frequent review of culture data

-Reduces costs

- **Disadv**

-May delay therapy

-Loss of prescriber autonomy

-Impacts only restricted agents

Prospective audit and feedback

- **Adv**-

-More data is available and hence uptake is better

-Educative and collaborative effort which could address de-escalation and duration of therapy

-Prescriber autonomy is maintained

- **Disadv.**

-Labor intensive

-Compliance voluntary and prescriber reluctance to change if patient better

Prospective (real-time) audit with feedback

- Assessment of antibiotic therapy by trained individuals, who make recommendations in real time when therapy is considered suboptimal.

- Alongside clinical personnel on ward rounds **OR**

AMS team may perform ward rounds on their own

Selecting the infections to audit

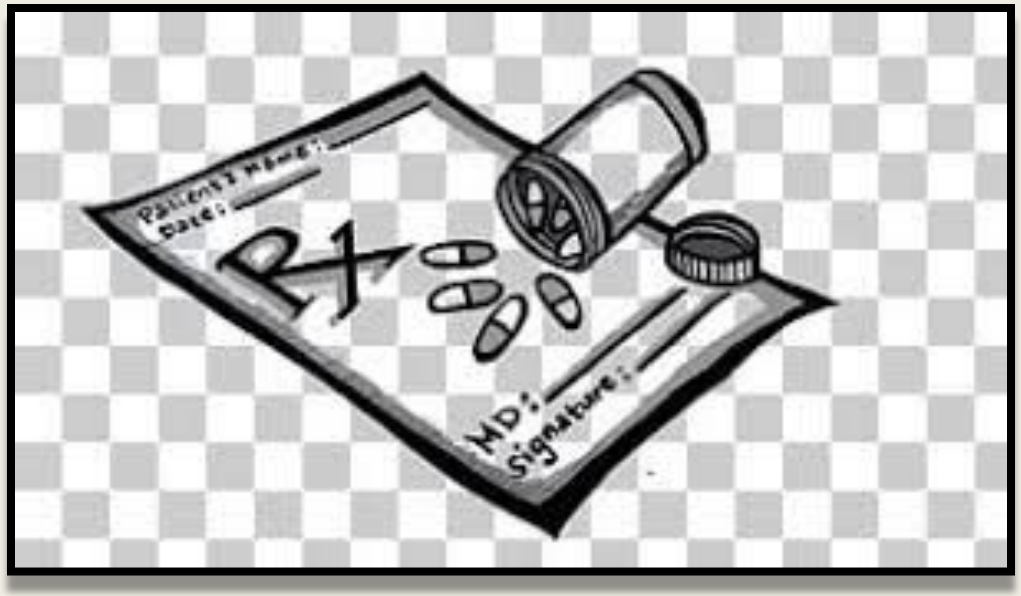
- **To what degree are infections treated according to guidelines?**
  - Data are collected on ward rounds or directly from patients' medical charts.
  - The audit should provide figures on compliance with the guidelines and suggest where there is room for improvement.

- **How to choose which infections to audit?**
  - Common infections, such as community-acquired pneumonia (CAP), UTIs, and SSTIs.

- When a problem is detected, a specific intervention might be designed.
- Infections treated for a long duration (e.g. >7 days).

Selecting antibiotic(s) for audit

- To what degree is an antibiotic used according to guidelines?
  - Rights on implementing AMA
    - *Patient,*
    - *Drug,*
    - *Dose,*
    - *Route,*
    - *Timing,*
    - *Duration*



- **How to choose which antibiotics to audit?**

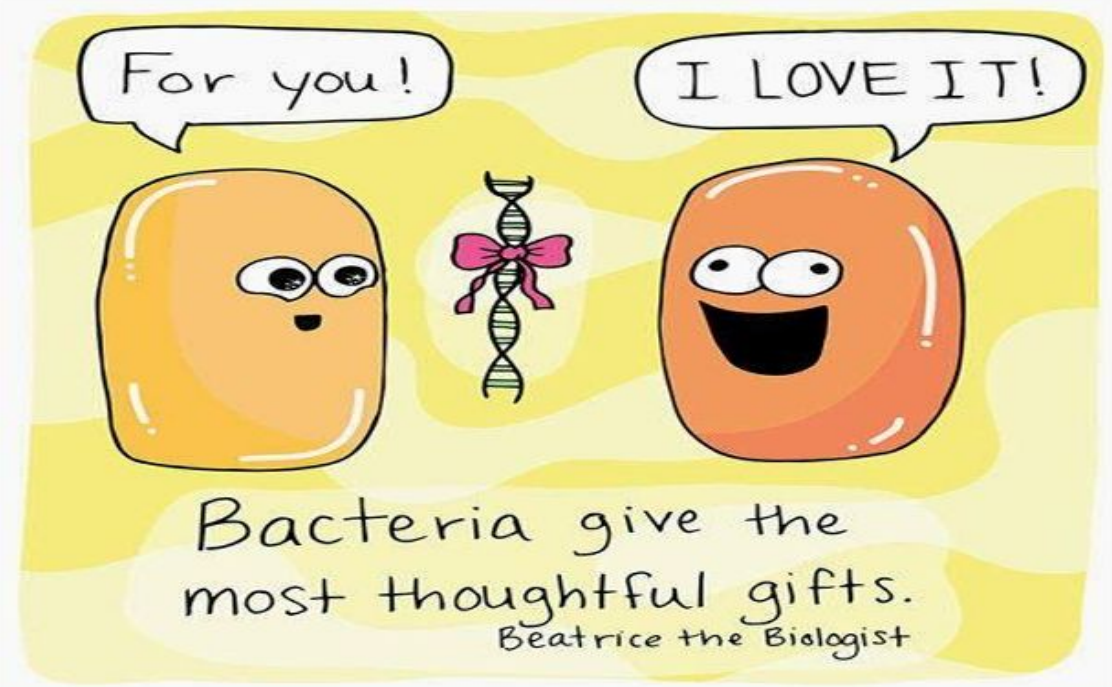
  • Antibiotics where consumption has increased significantly over time.

  • Antibiotics with a higher potential of inducing and propagating resistance (e.g. **WATCH and RESERVE** antibiotics).

  • Broad-spectrum antibiotics (e.g. piperacillin/tazobactam, ticarcillin/clavulanate, carbapenems).

  • Last-resort antibiotics (e.g. polymyxins, linezolid).

  • Expensive antibiotics



Antimicrobial Stewardship

Bacteria are generous they give each other gifts of resistance elements and humans too