



Scottish
Antimicrobial
Prescribing
Group



Current SAPG work programme and key challenges

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**REDUCE HARM &
OPTIMISE OUTCOME**

ANTIMICROBIAL PRESCRIBING QUALITY IMPROVEMENT

EDUCATION

SURVEILLANCE

**PUBLIC
ENGAGEMENT**

PRIMARY CARE

HOSPITAL

CONSORTIUM OF EXPERTS

Scotland 2017

- **Successes**

- Mature Stewardship framework/infrastructure

- Key support: Infection community, AMTs, ASAP, ADTCs, HIS, NSS
 - Guidance and good practice (GAV, MDRGNB)
 - Quality improvement (indicators, ScRAP)
 - Engagement across disciplines / organisations

- Unified PC guidance with sig reductions in Abx including higher risk agents

- Secondary care guidance with sig reductions in higher risk Abx

- Significant CDI and sepsis mortality reductions

Scotland 2017

- Challenges

- Hearts and minds

- Language and understanding

- e.g. AMR vs Antibiotic resistant infections, Restrictions vs Preservation, abstract ideas

- True inter-disciplinary engagement: Nursing, Pharmacy, Medical – Clinician led stewardship

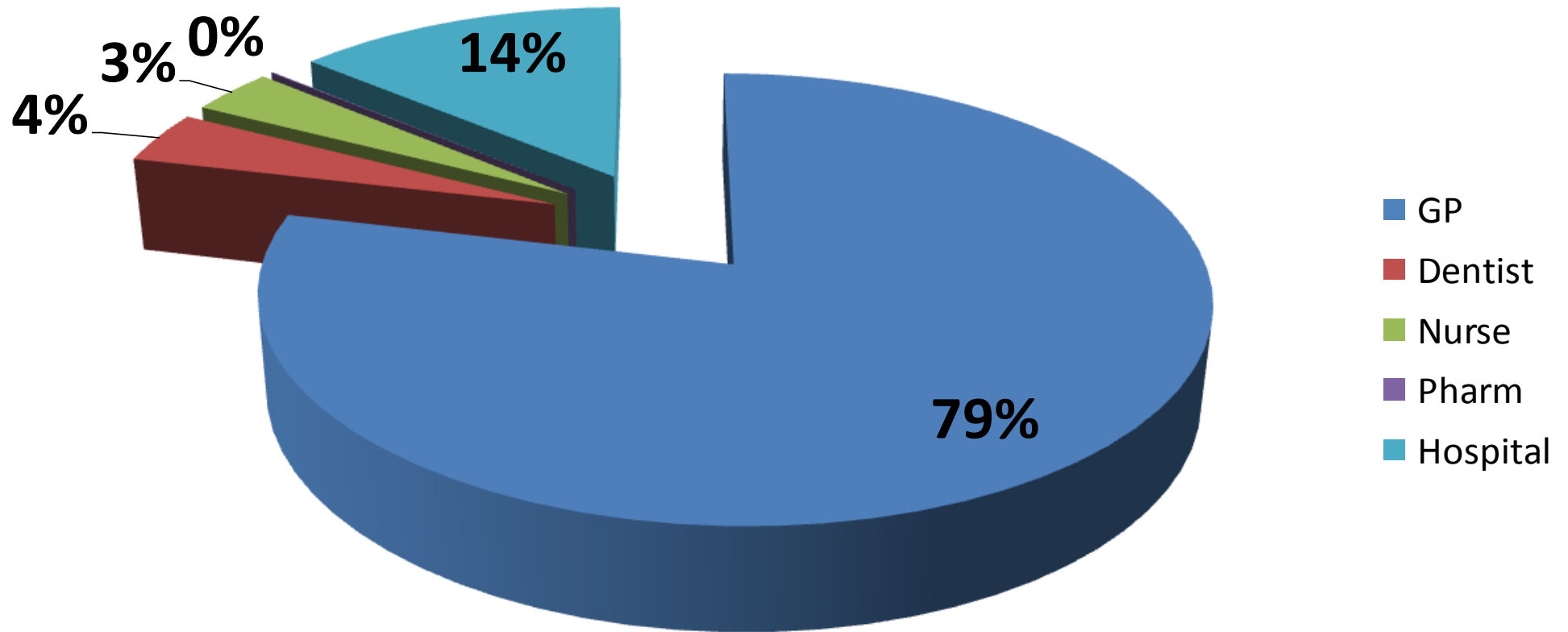
- Engineering behaviour change

- Electronic prescribing and e-support

- Pharma – financial / supply / gaming

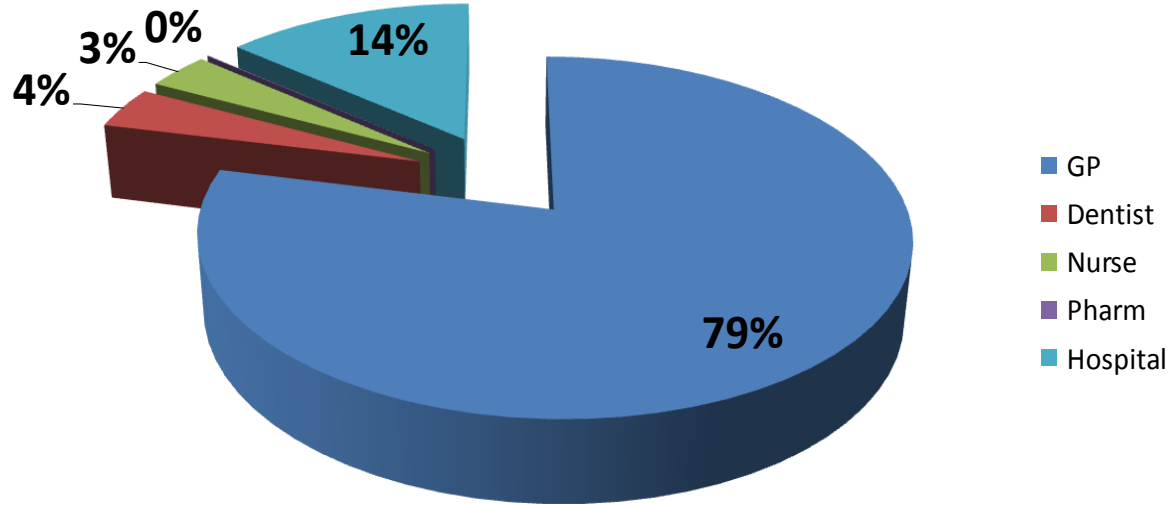
- Austerity – No more resource

Total Antibiotic use in Scotland in 2015 (DDDs) > 50m days



ONE HEALTH

Total Antibiotic use in Scotland in 2015
(DDDs) > 50m days



ENVIRONMENT

ANIMAL/AGRICULTURE

Total antibiotic use



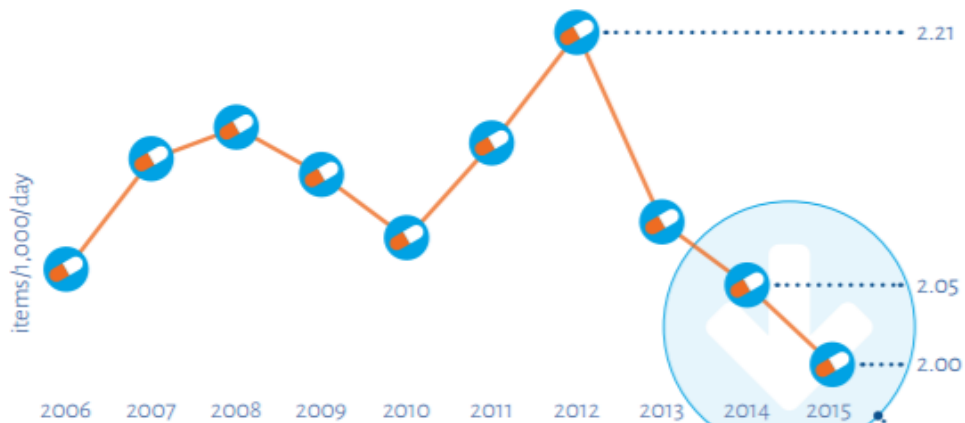
2.4% reduction in items per 1,000 population per day since **2014**

88,490 items fewer since **2014**

3rd year of successive **reductions**



Total antibiotic use



2.4% reduction in items per 1,000 population per day since **2014**

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DDD per 100



2012

2013

2014

2015

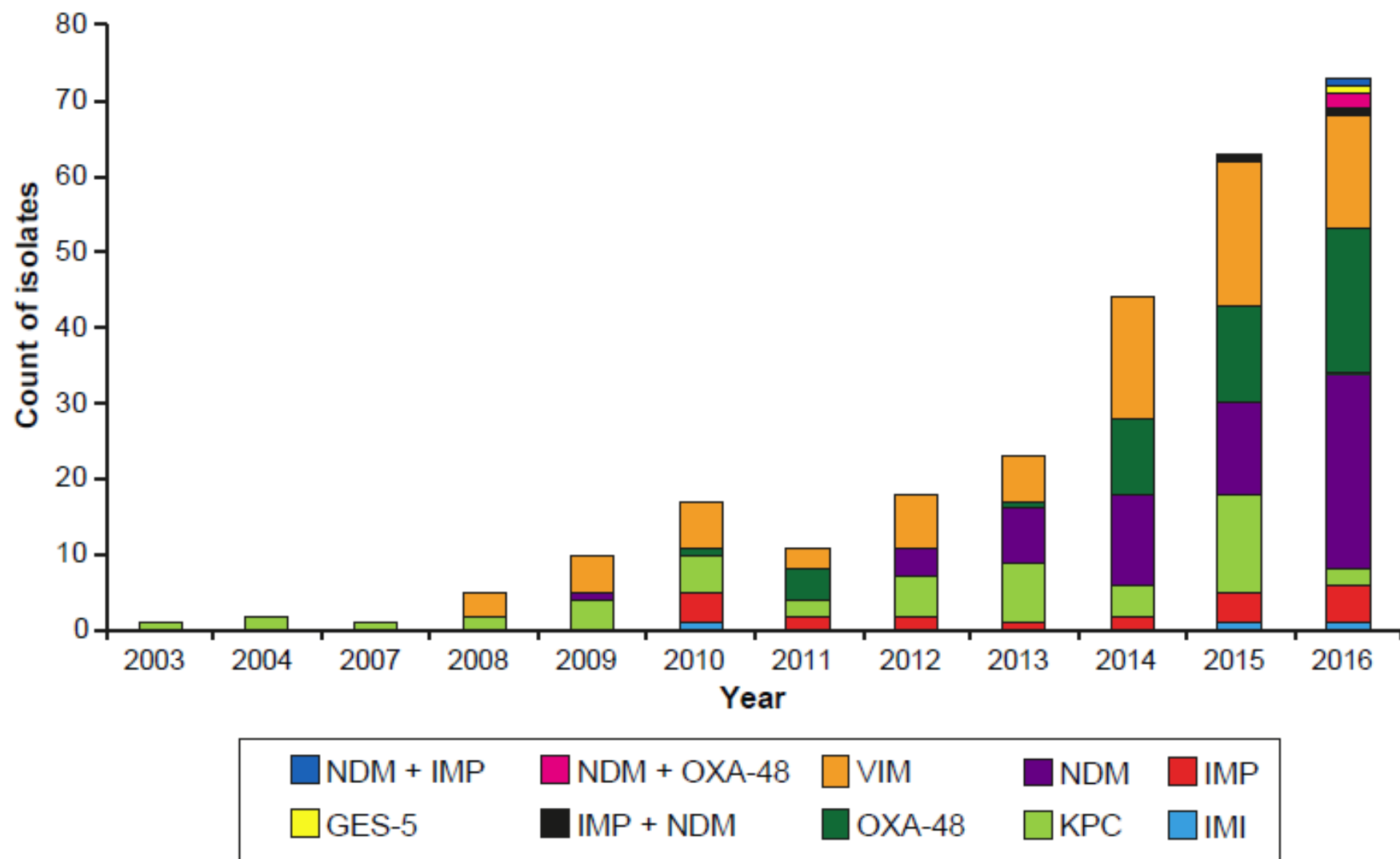
3.5% increase in DDD per 100 admissions since **2014**

9.9%^R increase in DDD per 100 admissions since **2012**



NHS Scotland: Use of antibiotics in primary vs secondary care

FIGURE 24: Number of CPO isolates by enzyme type reported in Scotland by AMRHAI (PHE).



Realistic Medicine

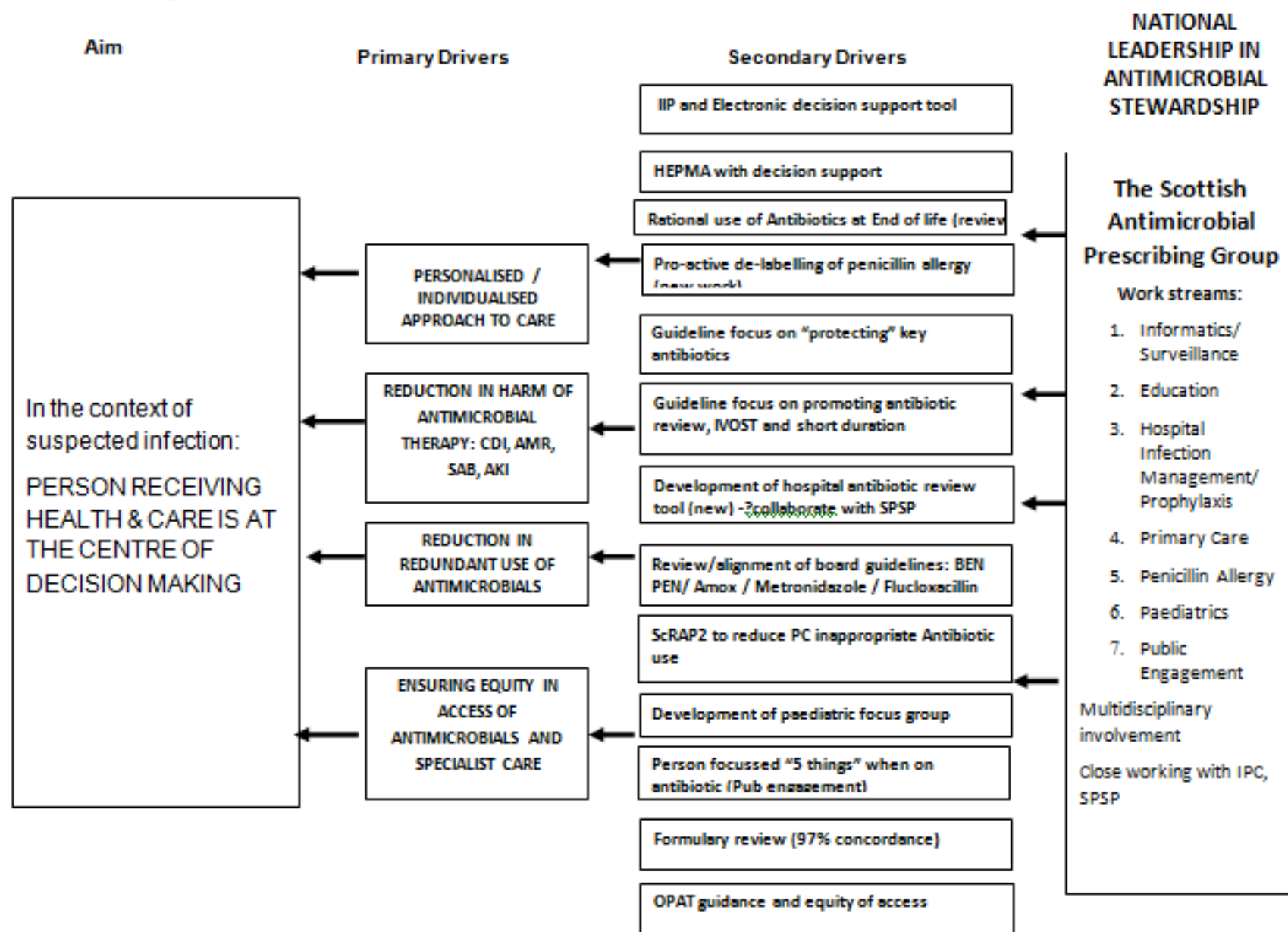
- Person receiving care is at the centre of decision making
 - Personalised/ individualised approach to care
 - Reduction in harm
 - Reduction in waste
 - Reduction in variation



How can SAPG Support “Realising Realistic Medicine”

- Personalise and Rationalise Rx:
 - Clinical decision support
 - Data management – Infection/antimicrobial “dashboards”
 - **Do simple things better**
 - Reduce redundancy & improve/focus review
 - Reduce duration of Rx & burden of IV Rx
 - Palliative / frail elderly
 - Minimise mislabelling of allergy
 - Diversification of Rx

Driver Diagram for ROLE OF SAPG IN REALISING REALISTIC MEDICINE



New programmes of work

- Supporting and promoting antibiotic review in hospital
- De-labelling Penicillin allergy
- Antifungal stewardship
- Prioritising AMS in paediatrics
- Developing AMS in Nursing profession

1. Day 3 Antibiotic Review Resource

- Build on success of ScRAP
- Draw on published AMS evidence
- Develop educational resource for hospital prescribers to support antibiotic review / de-escalation / STOP
- Case based learning resource
- Quality improvement methodology

2. De-labelling of Penicillin Allergy

- Reported - about 10% of hospital patients
- Reality – 80% of these are not allergy
- Mislabelling associated with increased Rx cost, admission length, AMR and poorer outcomes
- National approach (guidance) to de-labelling

3. Anti-fungal stewardship

- Currently no national approach
- Wide variation in practice in use of systemic antifungals
- Need uniform, cost-effective approach to utilising new diagnostic tests
- Optimise empirical and directed Rx

4. Paediatric AMS

- Increasing evidence of importance of microbiome and influence on many aspects of health
- Wide variation in antimicrobial practice
- Children not immune to AMR and CDI
- Some controversies in common practice (Strep throats)
- Relatively neglected - need for national focus

5. Nurse Stewardship

- Involved in every aspect of antimicrobial therapy from investigation, diagnosis, monitoring, administration and prescribing
- Rapid growth in NMPs: Primary/Secondary care
- World first resource – Antimicrobial stewardship work book. Highly rated but poorly utilised
- Acknowledge and develop role in AMS
- Further develop work book – acknowledging different roles/ function

Hospital Quality Indicators

Hospital Antibiotic Prescribing Quality Indicators

Part A: Reduction of antibiotic use

1% Reduction of antibiotic use per 1000 admissions

- Total antibiotic use per 1000 admissions
- Carbapenems per 1000 admissions
- Piperacillin-tazobactam per 1000 admissions

2015 baseline

Hospital Antibiotic Prescribing Quality Indicators

**Part B: Documentation of IV Antibiotic
review (including nature of review) at
72 hours**

**Part C: Documentation of Stop date or
Proposed duration if oral antibiotic
prescribed**

The Human Factor - Behaviour Change

*Maybe I should've checked what the allergy was or discussed with the Reg...
Maybe I was too quick to escalate.....*

*Why don't they ever do proper sampling?
Was it really an allergy?
Has someone senior seen the patient.....*

