Quality indicators and outcomes in the devolved nations – Northern Ireland

Mrs Cairine Gormley,
Chair of the Northern Ireland Antimicrobial Pharmacist Network and Lead Antimicrobial Pharmacist, Altnagelvin Hospital
• Background

• Stock-take on Progress with Tackling AMR in NI, 2012-2017

• Overview of Results

• What are we doing about it?

• Next Steps
Background

- England CMO Report
- Strategy for Tackling AMR (STAR) 2012-2017 - Human health

- UK AMR Strategy, 2013-2018 – One health

- SAMRHAI established – One health

- O’Neill Report
- HCAI AMS Improvement Board established

- NI signed up to O’Neill ambitions
- CMO Report on AMR

Future
- New One Health Delivery Plan to Tackle AMR in Northern Ireland
Stock-take on Progress with Tackling AMR in NI, 2012-2017

- Questionnaire for SAMRHAI representatives
- RAG rating of progress with actions set out in STAR completed by Trusts
- Interviews with key stakeholders
- Synthesised findings, and identified key themes
Responses

**Human health**

- Antimicrobial Pharmacists’ Network
- Chief Dental Officer
- HSCB
- HSC Trusts
- Public Health Agency
- Regional IPC Nurses’ Forum
- Regional R&D unit (PHA)

**Animal health, veterinary medicine, food sector**

- DAERA
- Food Standards Agency

Gap: Senior policy lead for environment
KEY THEMES FROM STOCK-TAKE

- Education
- Public and professional buy in
- Research
- Infection prevention control
- Optimising prescribing practice
- Optimising use of diagnostics
- Surveillance
1. PUBLIC AND PROFESSIONAL ENGAGEMENT
Public and professional engagement

• Work done to raise awareness and engage with the public and professionals by all SAMHRAI representative bodies

• Limited evidence re behavioural change but work ongoing to find out more about influencing behavioural change

• Gaps in public awareness, and professional engagement remain evident
When asked about antibiotics, 8% of respondents incorrectly thought that they should be used to treat colds and flus and that once they started to feel better they should stop taking them.

<table>
<thead>
<tr>
<th>Proportion of respondents who correctly identified statements relating to antibiotics as true;</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Antibiotics are used to treat bacterial infections</td>
<td>66%</td>
</tr>
<tr>
<td>You increase your chances of developing drug-resistant bacteria if you take antibiotics when you don’t need to</td>
<td>55%</td>
</tr>
<tr>
<td>You increase your chances of developing drug-resistant bacteria if you do not finish the course of antibiotics</td>
<td>42%</td>
</tr>
<tr>
<td>Diseases such as tuberculosis, pneumonia and meningitis are becoming more difficult to treat, as drug-resistant bacteria do not respond to antibiotics and continue to cause infection</td>
<td>50%</td>
</tr>
</tbody>
</table>
Engagement

• Prescribers report difficulties in managing demand for antibiotics
• Microbiologists and AM Pharmacists report real challenges in engaging with prescribers on AMS
• Participation in Antibiotic Guardian was poor in NI (1% of all AGs in UK)
2. EDUCATION
Education

• Some AMR/AMS education provided across many disciplines
  – Mandatory at induction for some new starts in some Trusts but
  – Inconsistent
  – Low profile, often ‘tagged on’ to other topics
  – Not in core curricula
• Hospital Pharmacists-Advanced Clinical Practice
• Practice based pharmacists- Project ECHO bespoke practice training,
• Gap in schools and for the public
3. OPTIMISING PRESCRIBING PRACTICE
Challenges - High baseline prescribing in human health in NI

- **NI**: 32 DDD per 1000 inhabitants per day (2016)

- **England**: antibiotic consumption has fallen - 21 DDD per 1000 inhabitants per day (2016)

Figure from Surveillance of Antimicrobial Use and Resistance in Northern Ireland, Annual Report, 2017
Both community and hospital prescribing is high

<table>
<thead>
<tr>
<th></th>
<th>Antibiotic items/1000 population/day (Community)</th>
<th>DDD per 1000 population per day (hospital and community)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Antibiotics</td>
<td>Piperacillin/tazobactam</td>
</tr>
<tr>
<td>England</td>
<td>1.79</td>
<td>21.90</td>
</tr>
<tr>
<td>Scotland</td>
<td>2.00</td>
<td>25.90</td>
</tr>
<tr>
<td>Wales</td>
<td>2.19</td>
<td>24.27</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>2.76</td>
<td>31.27</td>
</tr>
</tbody>
</table>

Antibiotic use across UK, 2015
Challenges in tackling prescribing

• Demand
• Rotation of junior medical staff
• Prescriber engagement
  – Competing priorities
  – ? Sepsis care pathways
• Lack of rapid diagnostics and point of care tests
• Lack of specialised microbiology/infectious diseases staff
What are we doing about it?
SAMRHAI

Regional HCAI & AMS Improvement Board

- HCAI & AMS Epidemiology Subgroup
- Primary Care AMS Subgroup
- UTI Tool Project Subgroup
- Secondary Care AMS Subgroup
- Infection Prevention and Control Subgroup
- Point Prevalence Survey Delivery Group
- Public Communications
Communication
Events
• HSCNI HCAI & AMR Sharing Event
• HSCNI World Antibiotic Awareness Week Symposium
• Regional AMR workshop

Publications
• 2017 CMO Report
• PHA HP Transmit
• UMJ Editorial
Training
System Design Workshop
Behavioural Science Project

• Using behaviour insights and behaviour change techniques to enable GPs and patient to manage suspected infections

We wanted to know if prescribers believed that AMR was important.

97.1%
Agree that AMR is a challenge that needs to be addressed urgently

88.3%
Agree that they have personal responsibility to tackle AMR in their practice
Fun games and teaching resources about microbes and antibiotics

Teachers
- Junior
- Senior
- Young Adult

Students
- Junior
- Senior
- Young Adult

Teacher Home
Partners
Educator Training
Community Resources
Peer Education
Decision Aid for diagnosis and management of suspected urinary tract infection (UTI) in older people

Hypothermia (low temperature of <35°C) may also indicate infection, especially in those with long-term health conditions (heart or lung disease, diabetes). Some patients/elderly may also have non-specific symptoms of infections such as abdominal pain, alteration of behaviour, delusions (confusion) or lack of diabetes control. The information provided covers good practice points and evidence sources for professionals. This checklist will help care home staff collect information for discussions with clinical staff.

Good practice points

Antibiotic therapy

- If antibiotics are required, prescribers should refer to the most recent version of the Northern Ireland Management of Infection Guidelines for Primary Care, available online here.

- Older people are vulnerable to Cefotaxime antibiotic infection, therefore use of broad spectrum antibiotics such as ciprofloxacin, co-amoxiclav and moxifloxacin should be avoided if possible.

- In hospitalised patients with symptoms of UTI, a seven-day course of antibiotics, following local antibiotic guidelines is recommended in both men and women. The catheter should be removed then replaced if necessary.

- Second choice antibiotic should always be guided by urine culture and history of antibiotic use.

Propylaxis of UTI

- The evidence base supporting antibiotic use for prophylaxis of UTIs is not strong, all studies were conducted pre-2000 and none evaluated patients beyond one year.

- Female patients who do not have a catheter and have more than three UTIs within a 12 month period may be considered for a trial of nitrofurantoin prophylaxis with thrice weekly or nightly dosing. The risk of adverse effects versus the potential benefit needs to be considered carefully.

- Long term antibiotic prophylaxis does promote resistance and there is no evidence to support their use beyond 6-12 months. Therefore ongoing clinical need should be reviewed after 6 months.

- Cranberry products may be considered as an alternative but evidence of their efficacy is lacking.

- In post-menopausal women consider the possibility of recurrent symptoms being associated with vaginal atrophy.

References:


Integrated Care

Contractual/financial

- Antimicrobial stewardship was one of two recommended Clinical Governance Themes under GMS Contractual Requirements in 2016/17
- Antibiotic Champion Enhanced Service. > ½ GP practices signed up to bring the practice together and agree an action plan on antimicrobial stewardship
- CRP Point of care testing
- Updated primary care antimicrobial guidelines
Integrated Care

Practice based pharmacists:

• Federation action plans volume of antimicrobial prescribing
• 2% per year
• 10% reduction by March 2021

HSCB Pharmacy Advisers

• Regular monitoring of prescribing and visits to GPs to highlight where improvements can be made
Secondary Care

- Antimicrobial Pharmacists Network
- Promoting Start Smart then Focus
- Multidisciplinary ward rounds
- Audit & Feedback
- QIP
- Guideline Development
- Education
- Antimicrobial usage reports
Phase 1: Secondary care AMS dashboard
Phase 2: Automated extraction and analysis at ward level

- Queries have been developed that will be used for ward-level intelligence about antimicrobial use
- PHA will develop an automatic analysis tool
From the Chief Medical Officer
Dr Michael McBride
HSS(MD)3/2016

PATIENT SAFETY ALERT

For action by:
Chief Executives, HSC Trusts
Chief Executive, HSC Board
Chief Executive RQIA
Chief Executive, NIMDTA
Chief Executive PHA

Implementation:
Immediately and to be completed by
31 March 2016

Summary of Contents:
The purpose of this circular is to highlight the challenge of antimicrobial resistance and to signpost toolkits that can support the HSC in improving antimicrobial stewardship in both primary and secondary care.

Dear Colleagues

ADDRESSING ANTIMICROBIAL RESISTANCE THROUGH IMPLEMENTATION OF AN ANTIMICROBIAL STEWARDSHIP PROGRAMME

Antimicrobial resistance (AMR) has risen alarmingly over the last 40 years and inappropriate use of antimicrobials is a key driver. The consequences of AMR include increased treatment failure for common infections and decreased treatment options where antibiotics are vital, such as during certain cancer treatments. Antimicrobial stewardship is key to combating AMR and is an important element of the Strategy for Tackling Antimicrobial Resistance and the UK Five Year Antimicrobial Resistance Strategy.
From the Chief Medical Officer
Dr Michael McBride

For attention of:
Dr [FORENAME] [GP SURNAME]
[ADDRESS 1],
[ADDRESS 2],
[ADDRESS 3]
[POSTCODE]

12 November 2017

Your practice is amongst the 20% highest prescribers of antibiotics in Northern Ireland

Dear Dr [GP_SURNAME]

Antibiotic usage in your Practice

Antimicrobial resistance is a serious and growing threat to our health in Northern Ireland. Reducing inappropriate antibiotic prescribing in primary care can help prevent a public health catastrophe.

The great majority (80%) of practices in Northern Ireland prescribe fewer antibiotics per head than yours.*

I encourage you to join the many practices that have already taken action to reduce their antibiotic prescriptions while safeguarding patients' health, by taking three simple actions:

1. ADVISE
   Discuss patient self-care instead
   Search online for the "TARGET antibiotics toolkit" or see the Primary Care Intranet**

2. DELAY
   Offer a delayed prescription
   Ask the patient to check with the pharmacist before using the prescription

* Figures from the NI Antibiotic Audit 2016
** See www.health-ni.gov.uk/primary-care-toolkit

Yours sincerely,

[Name]
[Position]
Department of Health
Next steps

- Regional AMR workshop
- New AMR delivery plan for 2018-2023
  - Owned by Alliance of One Health Leaders
  - Based on One Health approach and stock-take
  - Incorporate O’Neill ambitions
Acknowledgements

• G Armstrong, ST5 Public Health
• Public Health Agency
• Health & Social Care Board
• Innovation Lab
• Regional Antimicrobial Network