Antimicrobial stewardship guidance for all healthcare settings

15th November 2022

Summary of morning workshop outputs - reducing unnecessary antibiotic use

Workshop outline

- Workshop participants were asked to focus on three questions centred around reducing unnecessary antibiotic use in the healthcare setting assigned to their table
- 5 Settings: Hospital / Dental setting / GP / Residential care facility / Community pharmacy
- 16 tables of 9 participants
- Multidisciplinary group from various healthcare settings on each table
- Antimicrobial stewardship professional on each table

Workshop outline

Question 1: Come up with 3 ways in which you can positively deliver on reducing unnecessary use in the designated healthcare setting stated for your table.

Question 2: What barriers do you anticipate in advance of delivering on these 3 proposals?

Question 3: What plans can you put in place in advance to overcome these barriers?

Abbreviations: AMS: antimicrobial stewardship, IPC: infection prevention and control.

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Engage surgeons and target surgical antibiotic prophylaxis • Surgeon involvement in AMS action plan and AMS team • National SSI programme • Audit • Update-to-date guidelines accessible to frontline staff • Care bundle doc as part of safety stop • Safe site surgery - include it there	• Resistance to change • Culture • No enforcement • Time • Surveillance • Audit • Patient/family expectations	• Education and repeated message • ICT solutions • Decision aids • Leadership to back it • Get a champion for each department to bridge between AMS on the ground • Include post op check - between theatre and ward
National antibiotic prescribing guidelines and AMS app • National guidelines • IV-PO switch • Medicines calculator/app • Need national surveillence data	• Fear of missing something • Funding • ICT limitations • Localism (defensive practice) • Resistant to change • Time constraints • Burnout • Reduced resources (staffing) • Pressure from family/parents	• Local AMS Champions, engage medical and surgical leads locally • IT support • Selling point: avoid duplication • Element of fun • National/ multi-site collaboration include "usual suspects" • Frontline ownership • Prescribing aids • Safe space to challenge poor practice
MDT AMS Rounds • Audit and feedback • Identification of high risk patients, high risk antibiotic dose/duration • Regular clinical review • IPC link • Early discharge	• Overall time /prioritisation • Fear of speaking up	• Protected time • Stop doing what doesn't add value • IT support and ePrescribing • Fines for HCAI levels and incentives for good performance • Point of care tests
Optimise health • Advise pre-hosp • Pre-lab for elective surgery • Dietician, pharmacist, occupational health, CNS	• Finance • Demonstrated benefits • Less fragmented service • Making pre-lab accessible • Too intensive	• Investment • Engaging senior management on importance of this • Improved links between community health and wellbeing services
Restrictions	• Resources - multi disciplinary	• IT solutions and ePrescribing • Investment

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Promoting AMS education and awareness among HCPs • Personalised education • Newsletter • Posters • Patient stories • Screensavers • Red aprons and tunics (RESIST) • Medication rounds • Stewardship rounds • Communicating AMS to medical/surgical teams • Quality initiatives e.g. durations (PPS)	• Culture and behavioural change (top down) • Time • Access to frontline staff • Fatigue from mandatory training • Constant learning required • Outcomes – defensive medicine	• AMS champions, CNM representative • Partnership and empowerment • Team meetings, huddles, Q's, engagement, case studies, share learning, personalised education, include HSELAND modules in education plan • Protected time • Visibility • Longer rotations for NCHDs (more of an overlap and changeover) • Workable interventions, informal interventions • Promote START SMART • Out of hours support • Look to veterinary for model of communication and incentives
Transition of care acute & community	• Availability of appropriate forums/methods for feedback	• AMS champions on each team • Culture of engagement
Audit, surveillance, feedback and quality improvement plans • Individual consultant feedback for prescribing practices	• IT resources • Lack of pharmacists • Continuity of staff - staff turnover • Lack of buy-in	• Resources without investment • More effective selection of work • More university places and better opportunities for higher learning in post • IT support and ePrescribing
Learning from incidents/emerging patterns	• Infrastructure	• Better focus on AMS in undergraduate training
Laboratory reporting • Interpretative comments and restrictive reporting • Fast turnaround • Learning from the use of CSF panel Flu & Covid testing • Diagnostics can result in decreased antibiotic use and length of stay • Point of care testing (e.g. CRP, procalcitonin)	• Transition of care interface between settings • Lack of communication • Lack of recent medical records • OOH • Hospital - public/private hospitals	• Regular attendance of AMS team at various departmental meetings attended by consultants
Governance and reporting structure • Framework for AMS and KPIs • Permanent agenda item • Guidance • AMPs, IPC (MDT approach), D&T, QI	• Fear of change in culture • Negative attitude • Burnout	• Resources (Human/IT/Machinery/In labs/Communication/Back to patient level/service users)

Dental Setting – reducing unnecessary antibiotic use

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Enhance **patient (and parent) education (**managing symptoms, risks vs benefits of antibiotics and oral hygiene & preventative advice)	• Health literacy • Poor nutrition • Patient fear dentists/dental procedures.	• Public health initiatives and awareness campaigns • Involve all stakeholders - dentists, patient advocates, behavioural scientists. • National focus on importance of oral health.
Enhance **staff awareness and education** on AMR/AMS and knowledge of guidelines	• Time and resources. • Lack of clear governance structures. • Lack of public/private partnership. • Lack of preventative measures/initiative. • Access to up-to-date guidelines.	• Working group/clear governance structure - MDT approach • National CPD accredited body • Education/training sessions at local and national level • Standardised staff training & guidelines • Completion of HSEland modules • Include dental in AMRIC newsletter • Dental representation at AMRIC workshops/talks.
Deliver appropriate timely **access to care** for management and prevention of dental infection	• Financial barriers. Funding for preventative care, promotion of oral health & improved access to care. Disadvantaged areas. • Limited staff (medical card dentists, dentists withdrawing from schemes) • Access to secondary care services - theatre time. • Access to emergency service only (no early intervention) • Lack of awareness on acuity of issues.	• Engagement with stakeholders (government, HSE, dental schools, etc.) to increase capacity.
Move from procurement and central supply model of antibiotic provision to **use of prescriptions**	• Incorrect transcribing of prescriptions by other prescribers. • Cost to patient of antibiotic	• ePrescribing - improve reporting and audit
Improved **penicillin allergy documentation**	• Lack of definitive penicillin delabelling protocol • Education and training.	• National standardised penicillin delabelling protocol • Patient education • Easy workflow - built into electronic system
Performance feedback to dentists on antibiotic prescribing	• Resistance to performance feedback • Change in culture.	• Education/training/CPD • Learn from GP experience • Antiobioticprescribing.ie for local measures • Dentistry champions

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Patient education to address patient expectations (both during patient consultation and national education programme)	• Time (GP) • GP pressure to prescribe - fear of litigation • Buy in from all stakeholders - national momentum required • Resistance / attitudes of patients • Crèche restrictions language/literacy/cultural difference • Societal demands • Social media • Different target audiences, babies, older persons • GP private businesses • Patient expectation - cost of GP - wanting RX. • Saturation of information post covid including fear	• During consultation (explore expectations, use deferred/hold prescription, provide assurance and alleviate anxiety) • Target parents and young children (at maternity discharge, midwife setting, PHN early visits and developmental checks, GP checks at 2 and 6 weeks, vaccination appointments, targeted education for crèche staff) • www.undertheweather.ie • Radio campaigns • School awareness campaigns for kids - Plan school education group • Review practice elsewhere (Europe/Global) • Social media (eumom.ie - free packs) • HSE nurture pack - include info • Link and signpost to website/resources • Target at patients most in need • education and visual aids (infographics) • Patient education on alternative therapy (e.g. fluids), how to collect urine sample, hygiene, food intake. • Provision of clear consistent advice (GP/pharmacy/media) • IT solutions (patient specific site, ease of accessibility, upgrade HSE.ie website taking digital illiteracy into account and using infographics)
Enhanced collaboration, workflow and timely access to GP	• Burden - additional workload • Differing levels of knowledge • Lack of awareness of gaps in knowledge • Agreement across stakeholders • Staffing issues in GPs and hospitals • More GPs close to retirement age • Recruitment and retention	• Use ISBAR communication tool for PHN/GP, nurse/HCP, community prescriber/GP communication • CPD for nurses • Flowchart for patient profile • Education or care of patients delivered by appropriate profession to free GP time (eg. public awareness campaigns, role of PHN educating new parents, education of young children on general healthcare) • Bring GPs together with other stakeholders and educate large group • Engage representative bodies - ICGP, ONMSD, IMMO, IFOP • Benefits AMS • Use software • Evidence based research (overuse of antibiotics)

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Target OOH antibiotic prescribing • Standardised nationally • Review stock list (reduce red antibiotics) • Software - antibiotic prompts and audits • Dipstick urinalysis for diagnosis of UTI	• Financial • Digital infrastructure • Liaisons across MDT • Software provider • GDPR • Red antibiotics still required	• Digital governance/oversight group • Regional Health Authorities • Bring together digital infrastructure across hospital/community • Common approach - initial steps - red/green promotion • Slaintecare priority for eHealth • Unique identifier
Rapid diagnostics • 24 hour turn around • Point of care (GAS, CRP)	• Time (use call backs, staff, communications) • Cost • Technology • Space • Time to install	• Clinical nurse specialist/Antimicrobial pharmacist /GP pharmacist support • Administrative support • Money • Slaintecare • IT roll out • Better IT
Guidance and education for GPs • AMS, AMR and treatment • Informing pathway of how samples are handled in hospital e.g. cultures • Complexity of infection not a case of one fits all e.g. UTI catheter, elderly, paediatrics • Data driven • Audit and feedback on antibiotic use	• Time to write and read • Practical (not tick the box) • Length (short pathway infographics) • Directed to MDT and patient • Not prescribing an antibiotic can take time and effort in the short term (additional explanation and negotiation)	• MDT working groups • Audit feedback e.g. GMS RX very helpful & personal feedback • Journal club presentation • GP education on communication to patients on course of illness - reassuring patients • Better info to patients prior to GP visit on expectations re antibiotics, create awareness around selfcare, fluids, hygiene • Incentivise no antibiotic approach for GPs • Antimicrobial pharmacists in GP practice to support. • Community pharmacists in GP practice to support. • Delayed antibiotic prescription rather than immediate for non - severe infection • Medium/long term benefit: low antibiotic prescribing rate reduces consulting rates

Residential Care Facilities – reducing unnecessary antibiotic use (1 of 2)

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Target diagnosis and treatment of urinary tract infection • Education re appropriate dipstick use • Training for all staff (healthcare assistants, nurses, prescribers, pharmacists, patients & relatives) • Fluid champion/designate person on every shift • Clinical review within 24hrs of prescribing an antibiotic	• Lack of knowledge • Tradition • Time and resourcing • Fear of repercussion/ defensive practice • Earlier access to lab results to guide clinical decision making	• HSEland eLearning modules (AMS and UTI modules) • Set target that all healthcare workers complete UTI module and others • Education/presentation by external AMS experts
Reduction of unnecessary sampling • Swabs (leg ulcers, pressure sites) • Urine (sample only in those displaying urinary related symptoms/signs) • Education (invite local microbiologist)	• Lack of knowledge • Tradition • Fear of repercussion/ defensive practice	• HSEland eLearning modules • Facility level KPI "prize" incentive • Invite external expert speaker
Reduce unnecessary prophylaxis • UTI prophylaxis • Azithromycin prophylaxis- respiratory • Promote resources available on antibioticprescribing.ie	• Knowledge lacking • Tradition • Fear of repercussion/ defensive practice	• Invite external expert speaker • Promote AMRIC guidance • HSEland eLearning modules • Increased collaboration between acute and community sectors
High level restrictions • Remove dipsticks from ward stock • Approved cleaning fluid stock levels in the agreed policy • Red antibiotics not on stock lists with regular review • Audit	• Resources • Change/ resistance	• Support for implementation • Education on why
Communication and engagement with residents and families • Use resources e.g. awareness stand • Shared decision making • Patient forums - encourage attendance • Show benefits	• Patient capacity in mental health/elderly patients & involvement from family members • Resistance to change, breaking habit culture	• Multidisciplinary approach • IT/IPC/Lab systems • Consultant microbiologists in community • Reduce bureaucracy, streamline

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Prevention of infection • Catheter management (e.g. discharge from hospital with care plan e.g. reason for infection, when changed) • Vaccinations: set targets and audit for covid-19, pneumococcal, influenza • IPC measures: hand hygiene, equipment cleaning, environment decontamination, PPE, auditing practices and feedback, quality improvement plans developed • Care bundles for any indwelling device e.g. PICC line	• Time and resources • Education	• Incentivise i.e. money • Accountability • Properly maintained role register • Increased collaboration between acute and community sectors • Promote safety culture to empower practice change • Increase link practitioners
Targeted GP education • GP and multidisciplinary education -open to non-medical advice as appropriate • Increased education • Improved access to microbiology expertise • Point of care testing	• IT and ePrescribing • Making protected time for GP education	• Education to all stakeholders including family/parent
Support clinical decision making • Considering if patient will benefit from an antibiotic • Support with IT systems and local audit	• Time and resources • Managing family expectations	• Implementing IT systems that are more fit for purpose • Fostering functions • Incorporating function into IT systems e.g. green/red and prompt to justify use of red
Implement electronic prescribing • Guidance incorporated • Enables audit	• Openness to change • Multidisciplinary • Embedded practice • Collaboration	• Audit and feedback cycles to drive improvement

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Patient education and awareness • Focused • Sustained • Specific patient cohorts • Posters in pharmacy (flu season)	• Time for patient discussion/review (stop dates) • Aligning messages (all healthcare workers) • Parent expectations	• More focused and sustained training • Context • Increased communication between pharmacists and prescribers
Patient counselling and advice • Advice on symptomatic treatment of self-limiting infections • Counselling on prescribed antibiotic • Discuss expectations/attitudes	• Information translation • Lack of information and summaries at patient level (e.g. azithromycin leaflet) • Time	• Involvement of patient as much as possible • Preserve relationship • Safety netting • Nurse input and other healthcare workers • AMS programme for community pharmacy - provide funding to incentivise
Promote and administer vaccination for at risk groups • Flu, pneumococcal, Covid-19 • Prevents infection and reduces demand for antibiotics	• IT infrastructure to support data collection • Staff • Certain patient groups are not eligible for vaccination so have to pay private	• Investment in people • IT solutions • Education • Incentivise community pharmacy staff to give vaccines • Real time review of vaccine uptake in at-risk groups so that supply can be managed and offered to a greater number of people e.g. those not currently eligible • Have a pharmacist in Slaintecare Group National Committee (no input currently)
Pharmacist education on AMS/AMR	• Time	• Requirement to have training completed in AMS before working in community pharmacy by PSI (similar to the UK for specialist community services) • AMS programme for community pharmacy - provide funding to incentivise participation • Make antibioticprescribing.ie available as an App

Ways to reduce unnecessary use	Anticipated barriers	Ways to overcome barriers
Provision of indication for antibiotic/antimicrobial on prescription • Separate section on prescription (standardised) • National community prescribing tool with layout showing: ~Medication ~Dose ~Duration ~Prompts ~(Tick box) is it as per guidelines or not	• Public vs private • Access and uptake • IT investment	• Standardised antibiotic prescription • ePrescribing • Access to EHR
Delayed prescriptions • Patient dependent • Syndrome specific • Communication is key • Day of week	• Urban/rural settings • Communication between GP, pharmacy, other health care settings	• Research/audit on local contexts • Patient interactions or habits • Pharmacy first before GP • Provision of clear consistent advice (GP/pharmacy/media)
Improved surveillance of prescriptions • Capture non-GMS Rx • Indicate choice, duration	• Lack of resources • Time • Feedback	• Capture all dispensed prescriptions for all schemes and private/public • More information and training days for community pharmacists and GPs to empower them
Communication tool • Interactive clinical consultation would be very helpful	• Internet access	• National IT supports