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Implementation date	April 2016	Review date	



Leeds North Clinical Commissioning Group

Antibiotic Prescribing Review 2016/17

Background

Improving antimicrobial prescribing and reducing the effects of antimicrobial resistance is a key objective for all NHS organisations as set out in the UK 5 Year Antimicrobial Resistance Strategy 2013 to 2018.

Evidence suggests that antibiotic resistance is driven by over-using antibiotics and prescribing them inappropriately. Keeping levels of antibacterial prescribing low by only prescribing antibiotics when appropriate will help reduce the spread of antibacterial resistance which can be a serious threat to patients who have infections that do not respond to antimicrobial drugs.

Broad spectrum antibiotics, such as co-amoxiclav, cephalosporins and quinolones need to be reserved to treat resistant disease and should generally be used only when standard antibiotics are ineffective.

This audit tool will contribute to LN CCG implementation of the NICE “Antimicrobial stewardship guidance NG15”, which will contribute to reducing antimicrobial resistance and contribute to the appropriate use of antibiotics

The implementation of this audit tool will contribute to the CCG meeting the Quality premium targets set by the DH for the reduction of total antibiotics prescribed and the percentage of broad spectrum and continue the great achievement’s over that last few years

Specific aims:

1. To maintain and/or improve evidence-based and appropriate prescribing of antibiotics across Leeds and compliance with local antibiotic guidance.
 2. To reduce the risk of antibiotic resistance and maintain the usefulness of existing agents
 3. To reduce the risk of Healthcare Associated Infection (HCAI).
 4. To ensure all prescribers can demonstrate they have the necessary competencies to prescribe antibiotics.
 5. To implement the NICE guidance NG15 “Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use”.
 6. To ensure practices have a process to use and record the use of delayed/back-up prescriptions.
 7. To support the patient awareness antibiotic campaign.
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Tools provided by the Medicines Optimisation Team:

- Patient Identification Searches (see list below)
- Data Collection Form – See Appendix 1
- Antimicrobial guidelines via **LHP** (link below)
<http://nww.lhp.leedsth.nhs.uk/antimicrobials/PCsystem.aspx>
- Antimicrobial guidelines via the Ignaz App – Please see below instructions on how to download Ignaz to your mobile devices.

Download Password

To download the app, on an Android or Apple or Windows device go to:

www.ignaz.nhs.uk

Tap "Download"

Enter the password "**handwashing**"

You will need to manually sync the app every couple of weeks as this does not happen automatically (you will need to go to "info" then "settings" then manually sync this app).

Since the last Apple update some iPhones and iPads have had issues with being able to access the Ignaz app. To resolve this and use the Ignaz Handbook app, you will need to do the following on your iPhone/iPad:

- Go to Settings >> General >> Profile
- You should see Ignaz listed at that screen. Tap on it.
- Tap to "Trust"
- It should then work.
- **PHE Prescribing Competencies** for Prescribers of antimicrobials:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/253094/ARHA_iprescrcompetencies_2_.pdf
- NICE **antimicrobial stewardship** guidance <https://www.nice.org.uk/guidance/NG15>
- RCGP TARGET antibiotic tool kit <http://www.rcgp.org.uk/targetantibiotics/>
- Royal College of General Practitioners website
http://www.rcgp.org.uk/clinical_and_research/circ/priorities_commissioning/clinical_champions/clinical_champion_recruitment/role_description.aspx

Patient Identification Searches:

As in previous years, searches are run for specific drug groups in specific months, and repeated at 6 monthly intervals to measure improvement and action taken on lessons learned from the previous audit. The drug groups and months for 16-17 are as follows:

- **April & October:** (*at least 50% of sample size should include children 12years & under)
 - **Abx Q1M1 Apr16 – Macrolides**
 - **Abx Q3M1 Oct16 – Macrolides**
- **May & November:** (*at least 50% of sample size should include children 12years & under)
 - **Abx Q1M2 May16 – Amoxicillin**
 - **Abx Q3M2 Nov16 – Amoxicillin**
- **June & December:**
 - **Abx Q1M3 Jun16 – Tx of UTI**
 - **Abx Q3M3 Dec16 – Tx of UTI**

- **July & January:**
 - Abx Q2M1 Jul16 – Other penicillins
 - Abx Q4M1 Jan17 – Other penicillins
- **August & February:**
 - Abx Q2M2 Aug16 – Cefs, Quins & Misc
 - Abx Q4M2 Feb17 – Cefs, Quins & Misc
- **September & March:** (50% of your total required sample size (see table below) should come from search “a PO Tetracyclines”, and 50% from search “b Topical Antibiotics”)
 - Abx Q2M3a Sep16 – PO Tetracyclines
 - Abx Q2M3b Sep16 – Topical Antibiotics
 - Abx Q4M3a Mar17 – PO Tetracyclines
 - Abx Q4M3b Mar17 – Topical Antibiotics
- **End of Q4:**
 - Abx Q4M3c Delayed Abx Rxs Apr16-Mar17 (incl deducted)

*For months where 50% of your audit figures must relate to patients aged 12 & under, identify your total sample size required (see table below), export the list to Excel, order your search results by patient age, and choose numbers of patients accordingly

Sample Size Guide

No. of Patients prescribed antibiotics	Sample Size Needed	Percentage Sampled
0-5	all	100
10	7	70
20	11	55
30	14	47
40	15	37
50	16	32
60	17	28
70	18	26
80	19	24
90	19	21
100	20	20
>100	20 (maximum)	

If your number of patients falls between the ranges, then round to the nearest whole number.

The screenshot displays the 'Medicines Management' section of the SystemOne interface. On the left, a tree view shows various search categories, with '16 17 PES for pracs (23)' selected. The main pane on the right shows a list of search results under the heading '16 17 PES for pracs'. The list includes items such as 'Abx Q1M1 Apr16 - Macrolides', 'Abx Q1M2 May16 - Amoxicillin', and 'Abx Q2M1 Jul16 - Other penicillins'. Below the list, there are several lines of text providing details about the search results, including 'AF LIVE-A: HICHAD2+ or M1, never excepted, not recently resolved, no rece' and 'DM Q1 (ongoing) DMPersTargs - T2DM excl insulin NO target HbA1c last 9'.

Name
Abx Q1M1 Apr16 - Macrolides
Abx Q1M2 May16 - Amoxicillin
Abx Q1M3 Jun16 - Tx of UTI
Abx Q2M1 Jul16 - Other penicillins
Abx Q2M2 Aug16 - Cefs, Quins & Misc
Abx Q2M3a Sep16 - PO Tetracyclines
Abx Q2M3b Sep16 - Topical Antibiotics
Abx Q3M1 Oct16 - Macrolides
Abx Q3M2 Nov16 - Amoxicillin
Abx Q3M3 Dec16 - Tx of UTI
Abx Q4M1 Jan17 - Other Penicillins
Abx Q4M2 Feb17 - Cefs, Quins & Misc
Abx Q4M3a Mar17 - PO Tetracyclines
Abx Q4M3b Mar17 - Topical Antibiotics

AF LIVE-A: HICHAD2+ or M1, never excepted, not recently resolved, no rece
AF LIVE-B: HICHAD2+ or M1 with old exception code none more recent UP
AF LIVE-DUE: HICHAD2+ or M1 w exception codes expiring in next 12m
DM Q1 (ongoing) DMPersTargs - T2DM excl insulin NO target HbA1c last 9
DM Q1 (ongoing) DMRisk (Gest) - Gest DM codes ever, excl current T2DM, '
DM Q1 (ongoing) DMRisk (PreDM) - Prediabetics with no HbA1c reading in
DM Q2 (ongoing) DMStepUpDuo - Duo PO Tx HbA1c 59-74 no injs
DM Q3 (ongoing) DMTesting - SU or glinide on rpt, missing lancets &/or tes
DM Q4 (ongoing) DMStepUpMono - Mono PO Tx & HbA1c 59-74 NO injs

EMIS search location instructions follow on next page

EMISWeb

Saved under *Leeds North CCG Search and Reports>Medicines Management>16.17 PES searches>Antibiotics*

All searches will need to be imported into your local unit. Terry Banks, senior pharmacy technician, can help you with this if required, please contact her directly on terry.banks@nhs.net or 0113 8432934 if needed.

The screenshot shows the EMISWeb interface. On the left is a file explorer for 'Leeds North CCG Search & Rep...'. The tree view is expanded to '16.17 PES searches' > 'Antibiotics'. On the right is a list of search results with the following items:

Name
Abx Q1M1 Apr16 - Macrolides
Abx Q1M2 May16 - Amoxicillin
Abx Q1M3 Jun16 - Tx of UTI
Abx Q2M1 Jul16 - Other Penicillins
Abx Q2M2 Aug16 - Cefs, Quins & Miscs
Abx Q2M3a Sep16 - PO Tetracyclines
Abx Q2M3b Sep16 - Topical Abx
Abx Q3M1 Oct16 - Macrolides
Abx Q3M2 Nov16 - Amoxicillin
Abx Q3M3 Dec16 - Tx of UTI
Abx Q4M1 Jan17 - Other Penicillins
Abx Q4M2 Feb17 - Cefs, Quins & Miscs
Abx Q4M3a Mar17 - PO Tetracyclines
Abx Q4M3b Mar17 - Topical Abx
Abx Q4M3c Delayed Abx Rxs Apr16-Mar17 (incl deducted)

At the bottom of the list, there are tabs for 'Details', 'Definition', 'Age / Sex', 'Trend', 'Patients Included', and 'Pati'.

Methods

Maintaining /improving evidence-based and appropriate prescribing of antibiotics across Leeds, including reducing resistance and risk of HCAI:

- Run the relevant patient identification searches for the allocated months.
- From the relevant search results, select sample size required for your practice (see table on p4), and choose that number of patients at random from your search results. You can choose to look at patients who have received Abx Rxs throughout the whole month, or for a shorter period within that month (eg 1st week in the month etc), depending on the total number of prescriptions issued that month.
 - a. **Exclude** any **secondary care** recommended and **out of hours** prescribing.
 - b. **Include** both **children** and **adults**, and both **acutes** and **repeats**.
- Collect applicable data from these patients by completing the relevant columns on the data collection form provided – See Appendix 1.
- Review these results.
- Discuss lessons learned and/or action plan with relevant practice staff/clinical meeting.
- **Submit summary of these plans/discussions to MOT each quarter.**

Demonstrating necessary prescribing competences for antimicrobial prescribing, including antimicrobial stewardship:

- Each prescriber in your practice should complete, and be able to demonstrate competence in, the antibiotic prescribing competencies tool produced by PHE – see link above under tools.
- Each practice must **submit in Q2 the number of their prescribers who have completed the antibiotic prescribing competencies** – See Appendix 3.

Ensuring process for use & recording of back-up/delayed antibiotic prescriptions:

- Develop a process within your practice for recording use of back-up /delayed antibiotic scripts. This process must include details of how you will action the following key points:-
 - i. How your practice will work and communicate with your local community pharmacy/ies on the use and monitoring of all back-up prescriptions for abx, for example you could include in the prescription directions:
 1. Delayed abx
 2. Only dispense between specific dates
 3. Return prescription to practice if not dispensed after specified date,
 4. For example: Doxycycline 100mg caps, 1 bd (delayed abx, only dispense between 01/04/16 to 03/04/16, return to practice if not dispensed after the 03/04/16). Please note community pharmacies will need to mark the prescription as “not dispensed” and not just return it to the spine.
 - ii. Post-dating by 24-hours for all back-up prescriptions for Abx
 - iii. Return of unused scripts for destruction 1-2 weeks after issue
 - iv. Read coding when back-up Rxs are issued, and correct documenting of returned/destroyed Rxs. Use the following code: *Patient advised to delay filling of prescription (S1: XaMAX; EMISWeb 8CAk)*
 - Implement this process within your practice.
 - **Submit an outline of this process at the end of quarter 2.**
 - At the end of quarter 4, the MOT will run a search to obtain your figures for delayed/back-up Abx Rxs for 16-17. **Practices need to submit numbers of delayed Abx Rxs that were returned or not dispensed at the end of Q4** – See Appendix 4.
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Summary of Outcome Measures

- a. Number/percentage of patient clinical records with an indication for antibiotic prescriptions recorded (compared with practices’ previous Abx audit submissions).
- b. Number/percentage of antibiotic choice in line with LHP guidance (compared with practices’ previous Abx audit submissions)
 - Of these, the number/percentage of antibiotics prescribed with the frequency, dose and duration in line with the guidance (compared with practices’ previous Abx audit submissions)
- c. Of the number of antibiotics prescribed outside of guidance, the percentage which also have a clear rationale for this choice (eg microbiology discussion/results).
- d. The number of back-up/delayed scripts issued and of these the number of scripts not dispensed.
- e. The number of prescribers who have demonstrated compliance with the antibiotic prescribing competencies (see tools list on p2).

Audit timetable summary

Event	Milestone
Complete 1st 3 months audit form and agree practice action plan <ul style="list-style-type: none">• Submit data collection proforma (Appendix 1)	By 31st July 2016
Complete 2nd 3 months audit form and agree practice action plan <ul style="list-style-type: none">• Submit data collection proforma (Appendix 1)• Submit Practice process for delay/back-up prescriptions (Appendix 2)• Submit the number of prescribers completed the prescribing competencies (Appendix 3).	By 31st October 2016
Complete 3rd 3 months audit form and agree practice action plan <ul style="list-style-type: none">• Submit data collection proforma (Appendix 1)	By 31st January 2017
Complete 4th 3 months audit form and agree practice action plan <ul style="list-style-type: none">• Submit data collection proforma (Appendix 1)• Submit the results of the number of delayed/back-up scripts issues and the number of delayed/back-up scripts returned/not dispensed needs to be submitted (Appendix 4).	By 30th April 2017

The Medicines Optimisation team will report back to practices quarterly to enable you to keep track of your progress. The MOT also will produce a CCG-wide Progress Report for presentation at Prescribing Leads meetings.

Antibiotic Prescribing Data Collection Form *(please submit this form at quarter end)*

Month.....

Antibiotics audited.....

	Antibiotic prescribed, strength, dose & quantity	Age	Pregnant (Y/N)	Indication	Antibiotic choice as per guidance (Y/N)?	Strength as per guidance (Y/N)	Dose as per guidance (Y/N)?	Course length as per guidance (Y/N)?	Was it appropriate to offer a delayed Rx?	If guidance not followed, what was documented rationale for this? Also note if documentation in GP notes was insufficient to determine appropriateness of Abx choice. Address in practice action plan.
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

	Antibiotic prescribed, strength, dose & quantity	Age	Pregnant (Y/N)	Indication	Antibiotic choice as per guidance (Y/N)?	Strength as per guidance (Y/N)	Dose as per guidance (Y/N)?	Course length as per guidance (Y/N)?	Was it appropriate to offer a delayed Rx?	If guidance not followed, what was documented rationale for this? Also note if documentation in GP notes was insufficient to determine appropriateness of Abx choice. Address in practice action plan.
15										
16										
17										
18										
19										
20										

Action Plan

Points discussed at multidisciplinary clinical/practice meeting?	
Areas of concern that need to improve?	
Actions agreed?	

Demonstration of implementation of the back-up/delayed prescription (submit quarter 2)

Number of patients who have been given a delayed/back-up prescription	Number of delayed/back-up prescription not dispensed

Demonstration of prescribers completed the antibiotic prescribing competencies (submit quarter 2)

Number of prescribers within the practice	Percentage of prescribers who have completed the antibiotic prescribing competencies

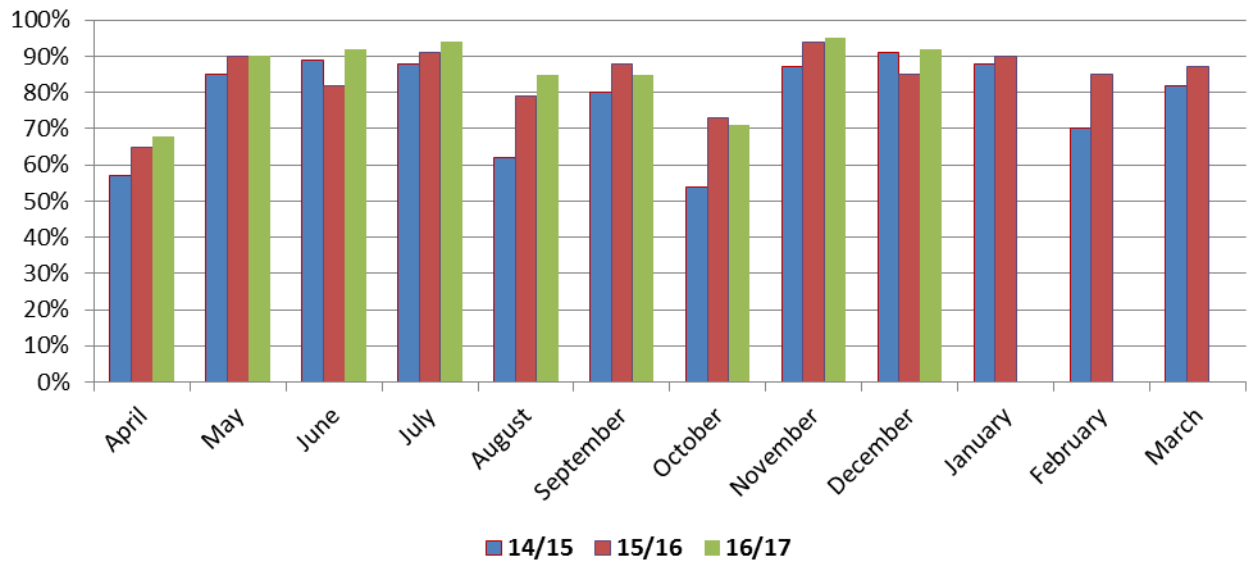
Demonstration of implementation of the back-up/delayed prescription (submit quarter 4)

Number of patients who have been given a delayed/back-up prescription	Number of delayed/back-up prescription not dispensed

PES Antibiotics Audit

Correct Antibiotic Compliance with Guidance

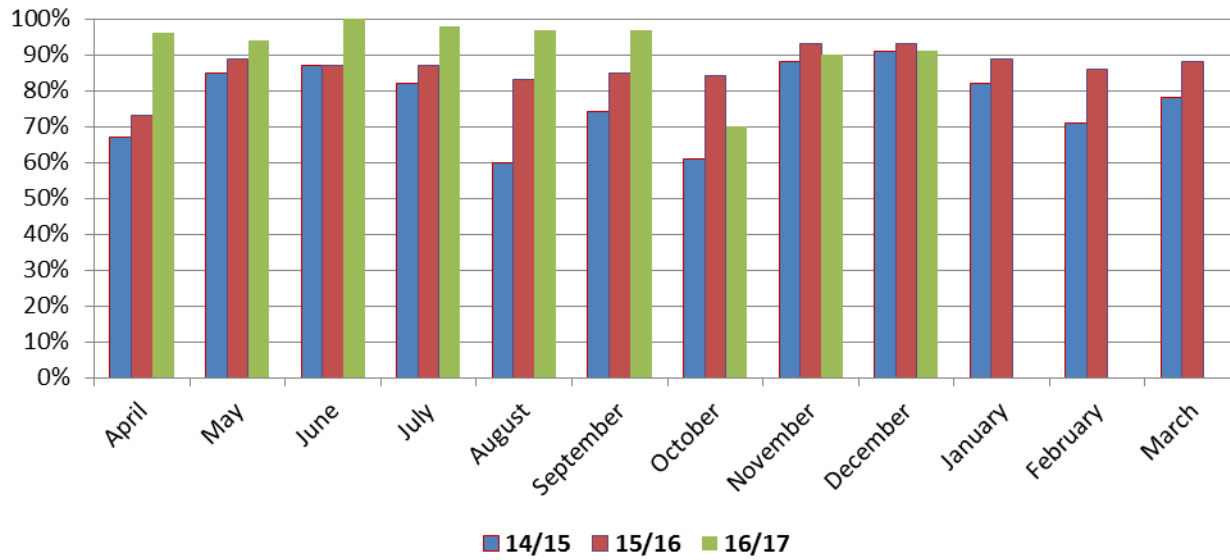
Cumulative %



PES Antibiotics Audit

Correct Strength Compliance with Guidance

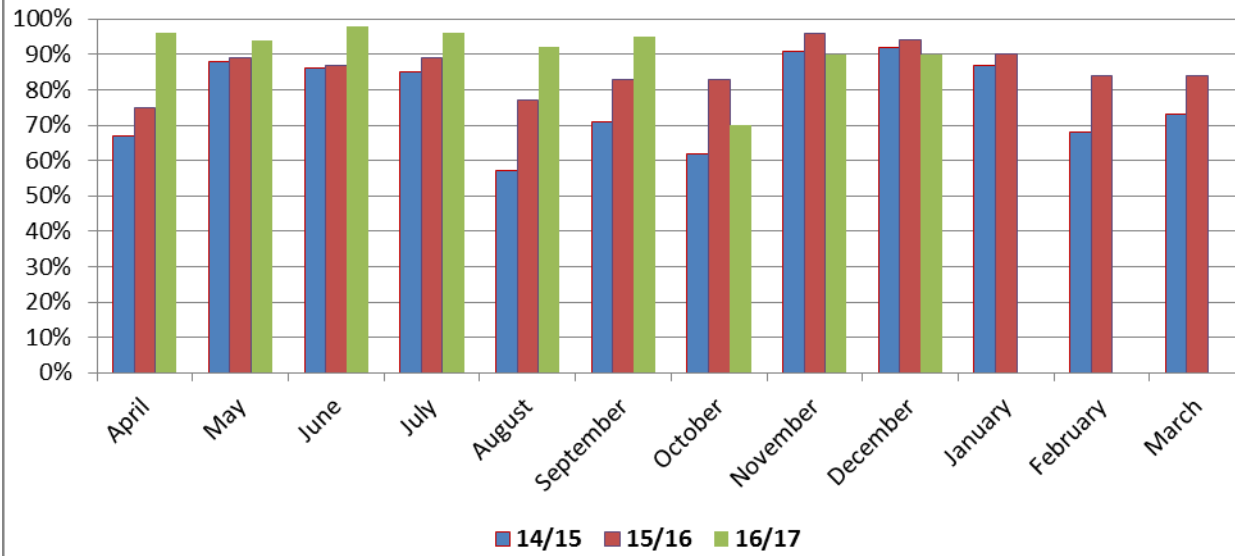
Cumulative %



PES Antibiotics Audit

Correct Dose Compliance with Guidance

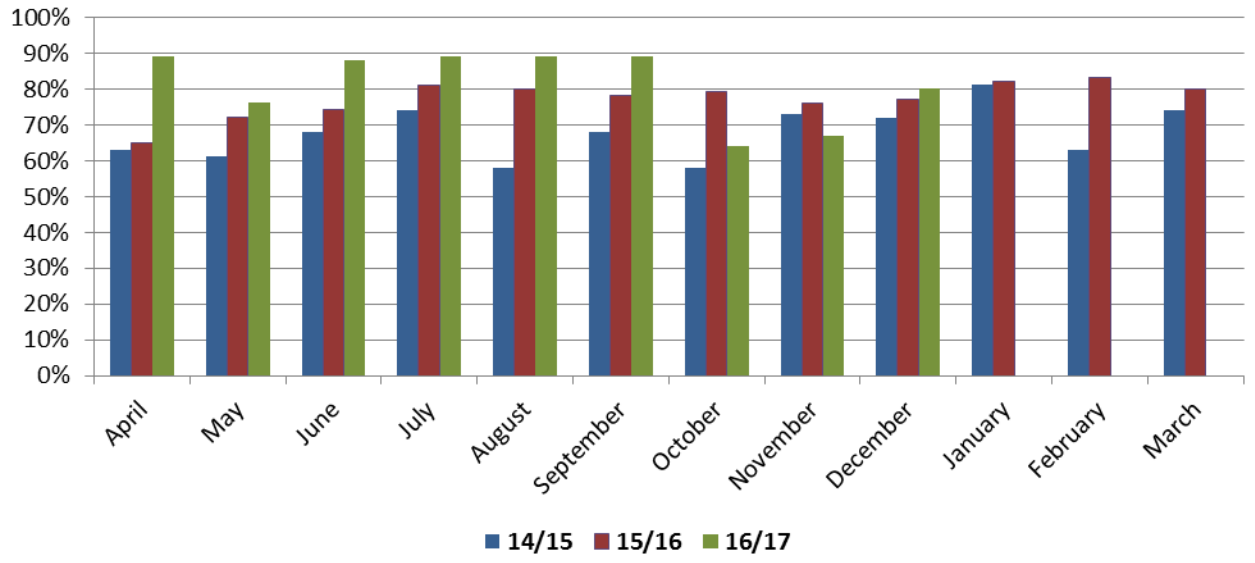
Cumulative %



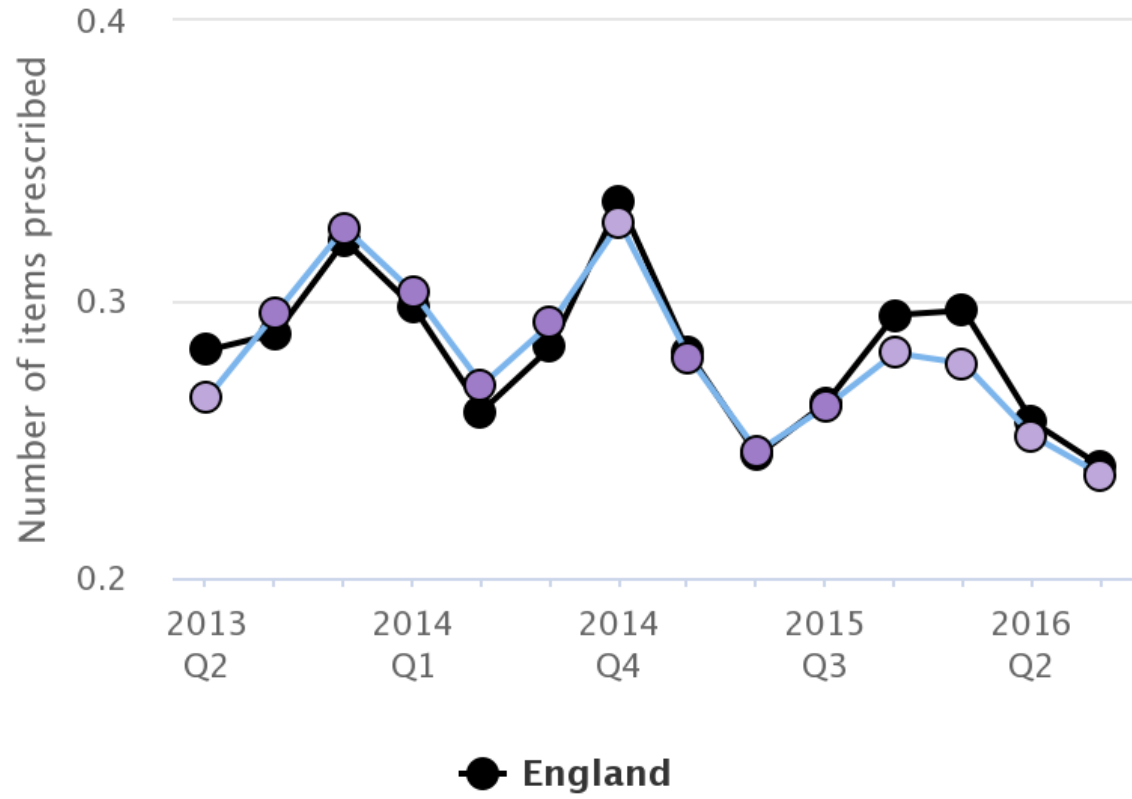
PES Antibiotics Audit

Correct Course Length Compliance with Guidance

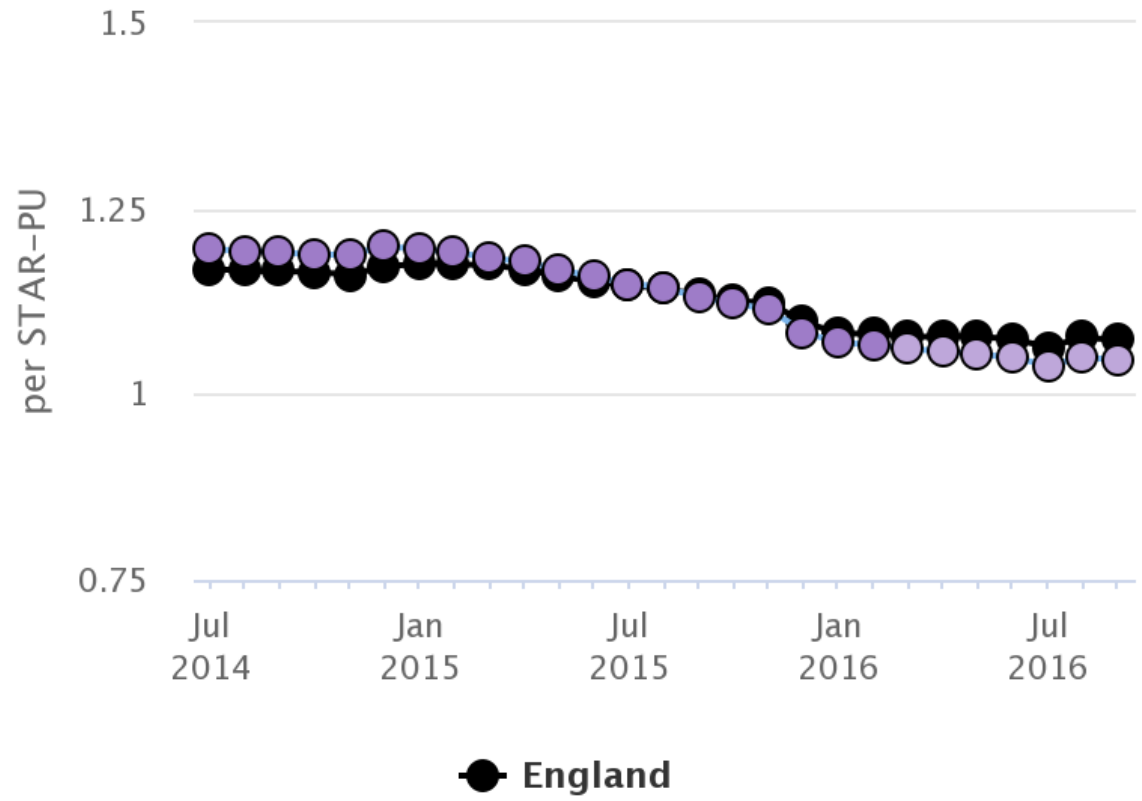
Cumulative %



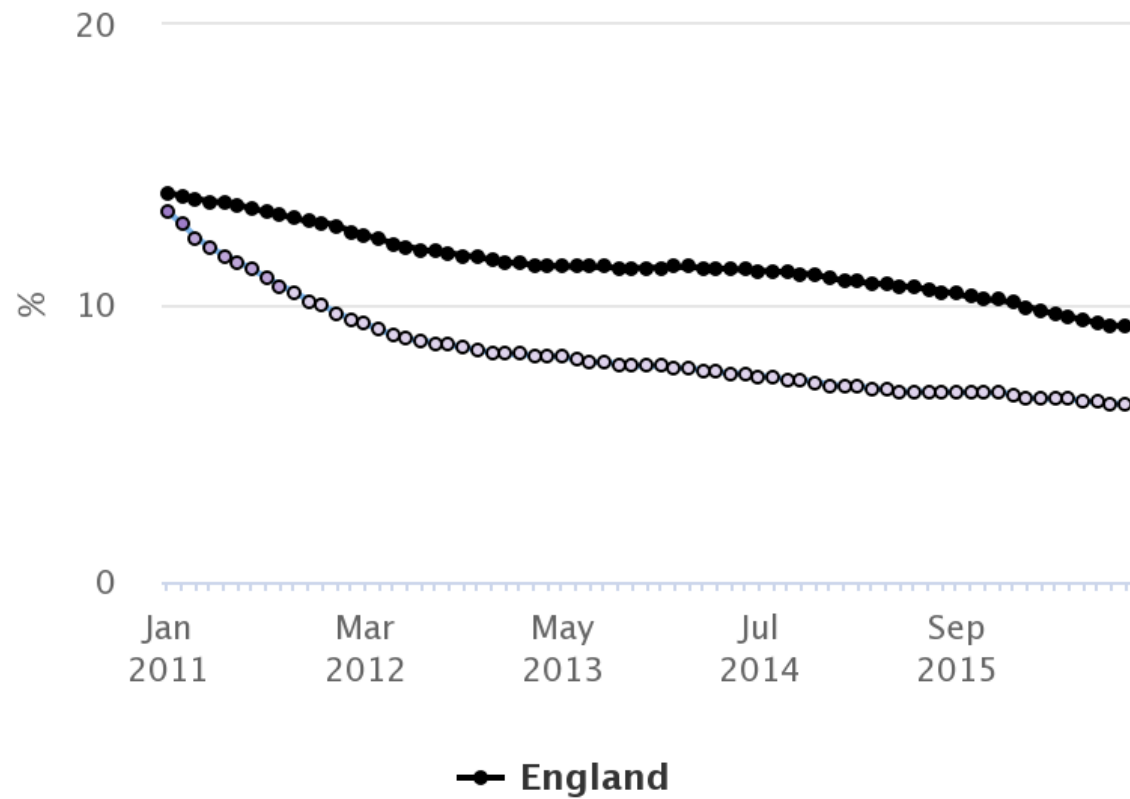
Total number of prescribed antibiotic items per STAR-PU by quarter
- NHS Leeds North CCG



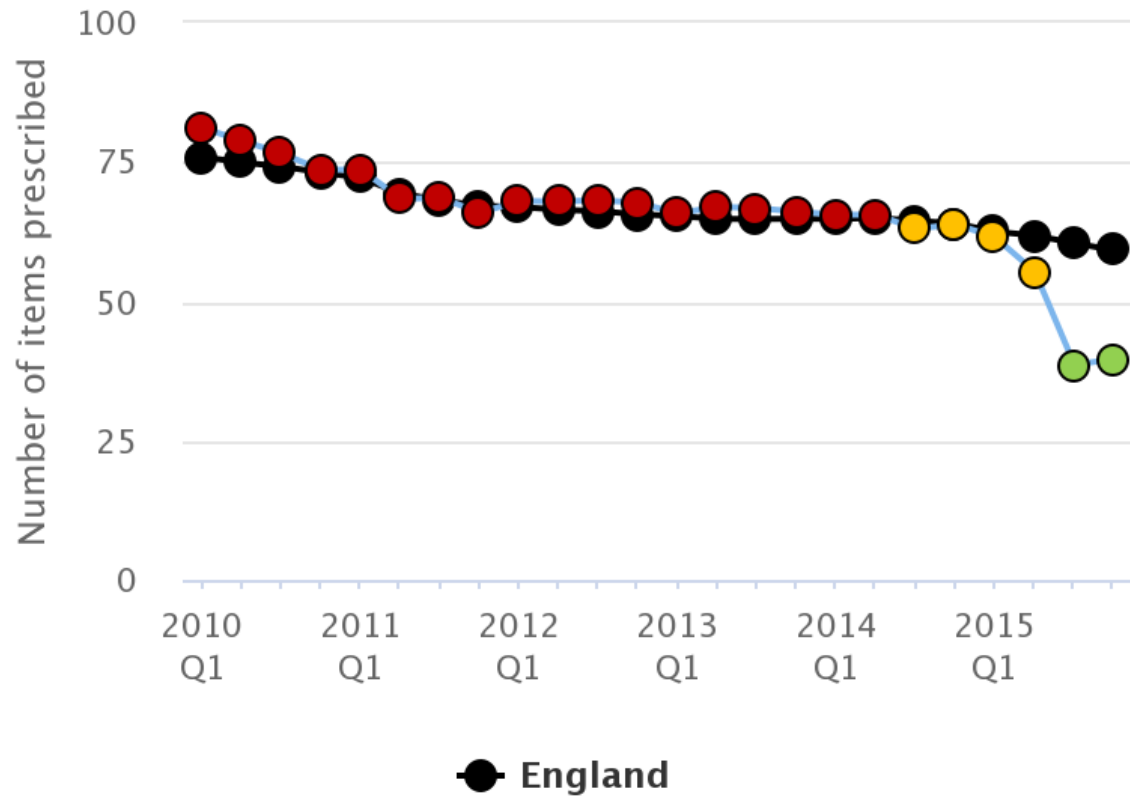
Twelve month rolling total number of prescribed antibiotic items per
STAR-PU – NHS Leeds North CCG



Twelve month rolling percentage of prescribed antibiotic items from cephalosporin, quinolone and co-amoxiclav class – NHS Leeds North CCG



Proportion of trimethoprim class prescribed antibiotic items as a ratio of trimethoprim to nitrofurantoin by quarter - NHS Leeds North CCG



Rolling quarterly average proportion of E. coli blood specimens non-susceptible to at least 3 of the key antimicrobials; by quarter - NHS Leeds North CCG

