

Prescribing Points



Oxfordshire

Cinical Commissioning Group

Vol 30 Antimicrobial Prescribing Special
Edition November 2020

Volume 30, Special Edition

Date: November 2020

Inside this issue:	Page
Introduction	1
OCCG Prescribing Data	2
Guidance and Resources	7
So What?	11

This newsletter is written by the Medicines Optimisation Team, Oxfordshire CCG (OCCG), Jubilee House, Oxford Business Park South, Oxford, OX4 2LH. It is for all health professionals in Oxfordshire and is uploaded to the OCCG website. For queries, contact OCCG.medicines@nhs.net.

Please let us know if you are receiving this newsletter and it is no longer relevant to you by contacting OCCG.medicines@nhs.net.



Introduction

OCCG is publishing this special edition bulletin in conjunction with the European Antibiotic Awareness Day (EAAD) on 18th November; which also marks the start of the World Antimicrobial Awareness Week (WAAW). The COVID-19 pandemic has presented numerous additional challenges for healthcare professionals (HCPs) managing patients with infections. Now, more than ever raising awareness of the risks of antimicrobial resistance (AMR) remains important as we continue to work together to prevent serious infections – including COVID-19 as well as reducing inappropriate antibiotic use. WAAW and EAAD have provided opportunities for focused awareness raising over the last few years.

This bulletin aims to provide an overview of antibiotic prescribing in Oxfordshire during the COVID-19 pandemic in order to draw learnings from current practice; to promote awareness of the AMR in and beyond COVID-19; and to highlight key resources that are currently available.

The outline of this bulletin is as below:

- OCCG prescribing data
 - Total antibiotic prescribing
 - Antibiotic prescribing in adults
 - Antibiotic prescribing in children
 - A review of *C.difficile* infections in OCCG, during COVID-19
- Guidance and resources
 - Respiratory tract infection (RTI)
 - Urinary tract infection (UTI)

- National resources
- Local resources
- Educational events/ training

- So what?

OCCG Prescribing Data

This section aims to give an overview of the latest antimicrobial prescribing trend in Oxfordshire.

Total Antibiotic Prescribing

The number of antibiotic prescriptions dispensed in England reduced by 16.7% (from 750 to 624 per 1,000 inhabitants per year) between 2014 and 2018. Reductions occurred across all age groups, but particularly in the under 65s. Oxfordshire as a whole remains below the national targets for total antibacterial prescribing rates. In 2019/20 total antibiotic prescribing remained stable; until a spike in March 2020 through to May in response to COVID-19 as seen in figure 1 below. This then reduced to unseasonal low levels.

Figure 1: 12 –month rolling total number of prescribed antibiotic items per STAR-PU in OCCG

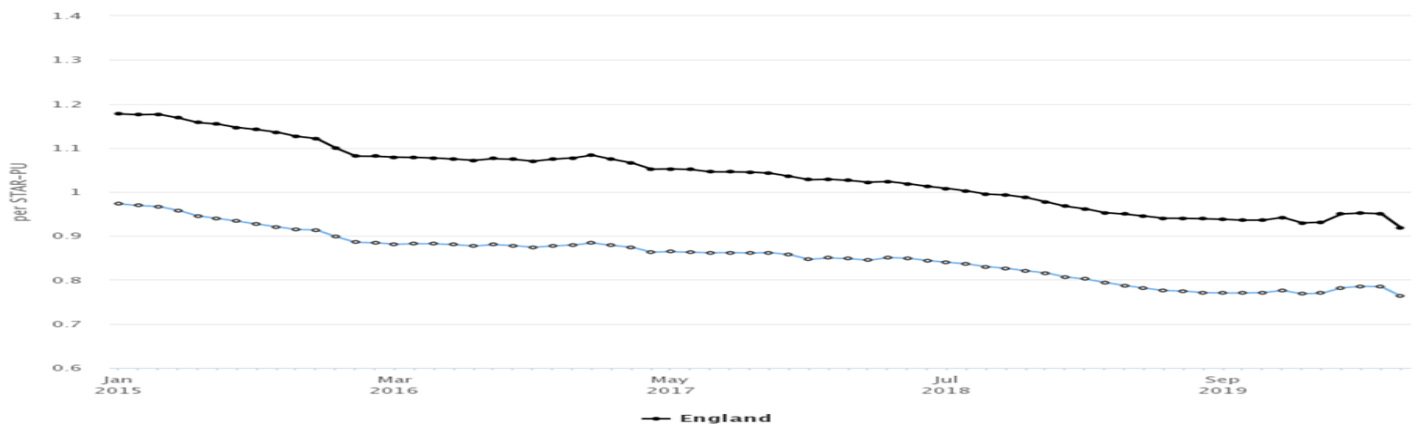
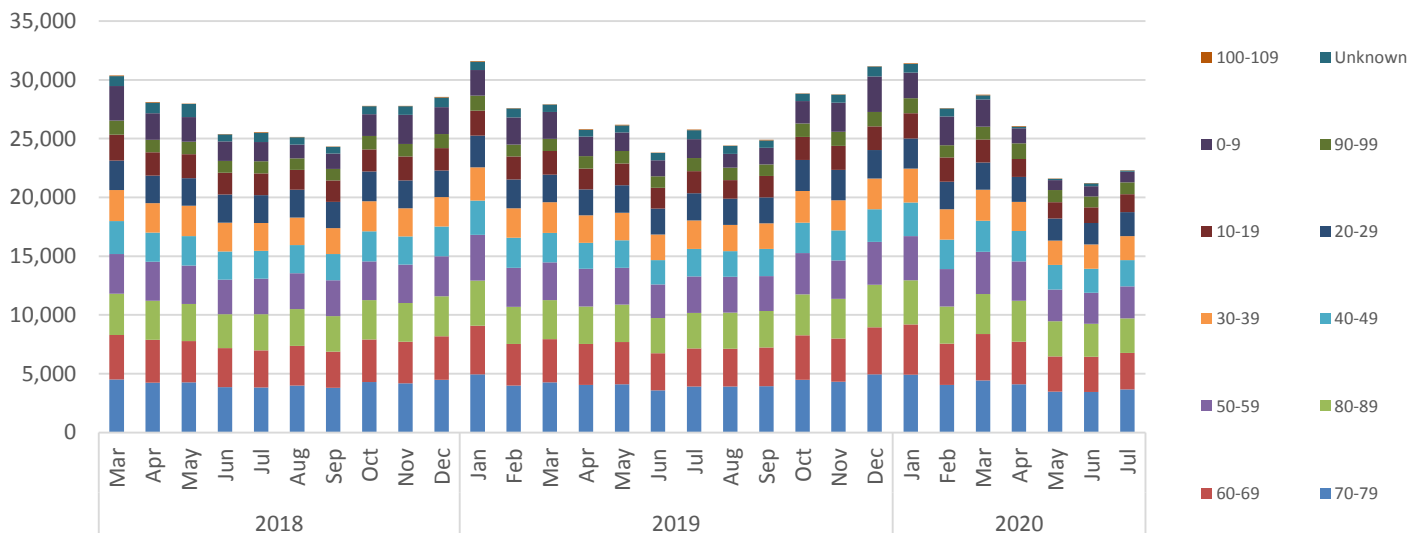
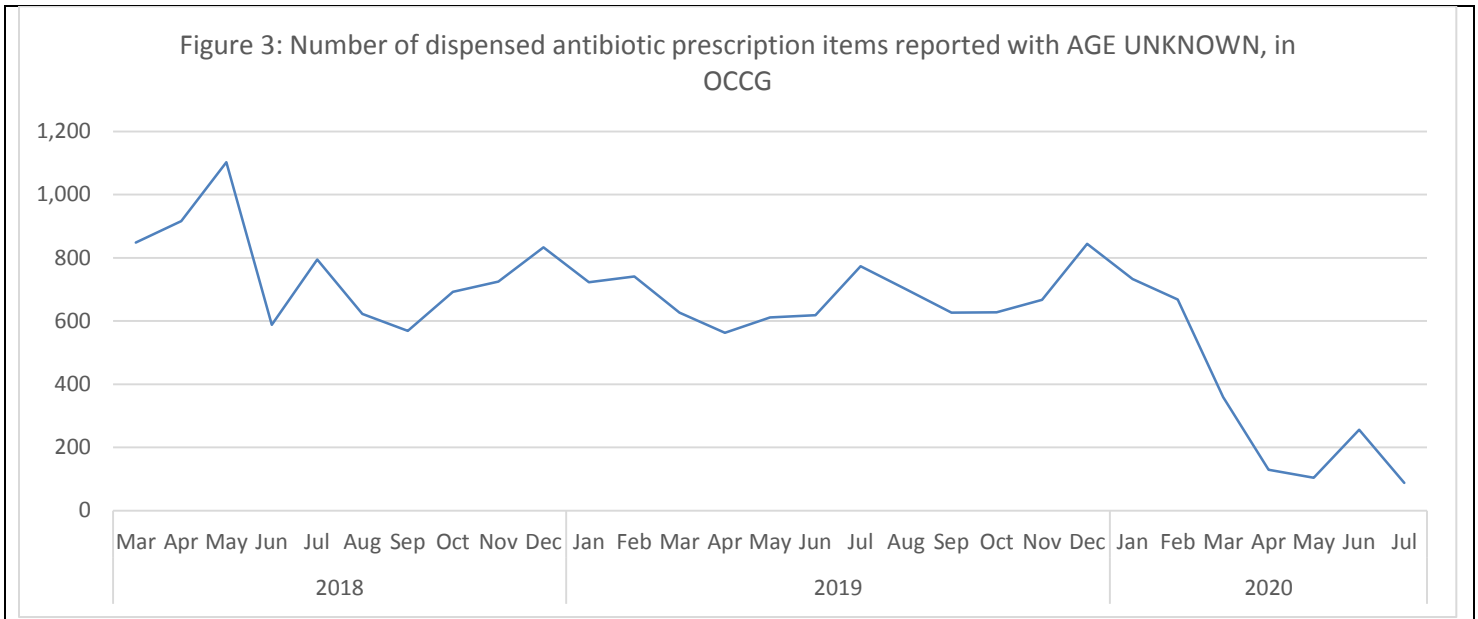


Figure 2 below shows a breakdown of number of dispensed prescribed antibiotic items by 10-year age band in OCCG.

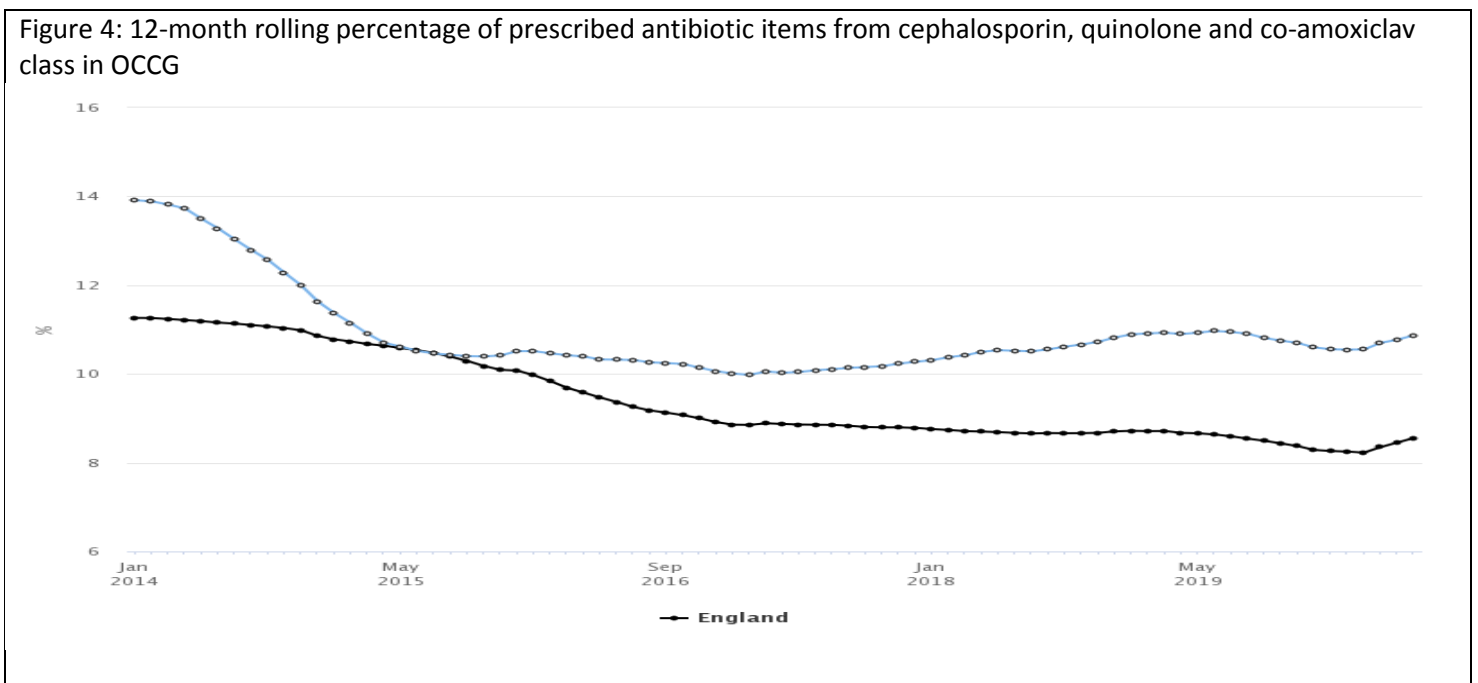
Figure 2: Number of dispensed prescribed antibiotic items by 10Y age band in OCCG



There is a noticeable decrease in the 'unknown' age band, due to improved prescribing as a result of increased adoption or usage of electronic prescribing during COVID-19 pandemic. Figure 3 below provides a clear depiction of the declining trend in number of dispensed antibiotic prescription items reported with an unknown age in OCCG:

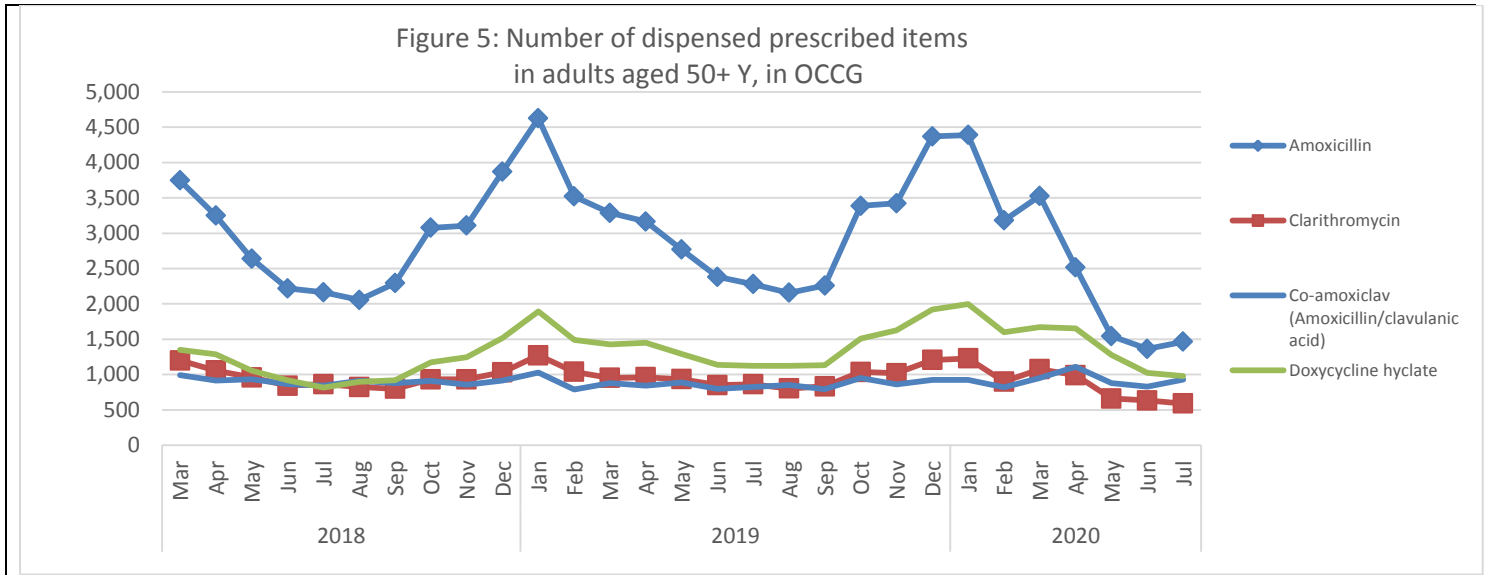


Reducing inappropriate use of cephalosporin, quinolone and co-amoxiclav to reduce *C. difficile* infection (and MRSA infection) has been prioritised in both primary and secondary care. However, while there has been a reduction in the prescribing of broad-spectrum antibiotics (most notably co-amoxiclav) over the past five years, Oxfordshire remains higher than the national average for the proportion of these high risk antibiotic items prescribed as a percentage of total antibiotic items. This figure has slightly decreased over the course of 2019-20 but there is quite a bit of practice variation in the use of broad spectrum agents. However, as depicted in Figure 4 below, prescribing of these high risk antibiotics has increased in April 2020 as a result of COVID-19, and continues to show an upward trend. This may be attributed to the overall decrease in total antibiotic prescribing.



Antibiotic Prescribing in Adults

In March 2020 there was an unseasonal spike in antibiotic prescribing for most age bands; particularly antibiotics prescribed for respiratory tract infections (RTIs) in adults aged 50+Y, as illustrated in figure 5 below, with the greatest % increase reported for doxycycline in March 2020 vs March 2019 (17.3%). By April 2020 prescribing of antibiotics for RTI reduced to lower than seasonal levels, with the exception of co-amoxiclav which is likely to be used to treat urinary tract infections (UTIs). There is also a shift from amoxicillin to doxycycline following the publication of [NICE NG165](#) in April 2020.



In September 2020 surprising research findings on the early symptoms of COVID-19 were reported from the [COVID Symptom Study](#). The study found that 49% of people aged 18 to 65 who had COVID-19 reported a sore throat; however, sore throat on its own does not indicate COVID-19. This raises questions about the appropriate assessment and management of patients presenting with sore throat symptom. It is important to consider COVID-19 testing in patients who have a sore throat and other covid symptoms. These patients should not be referred to the pharmacy for self-care.

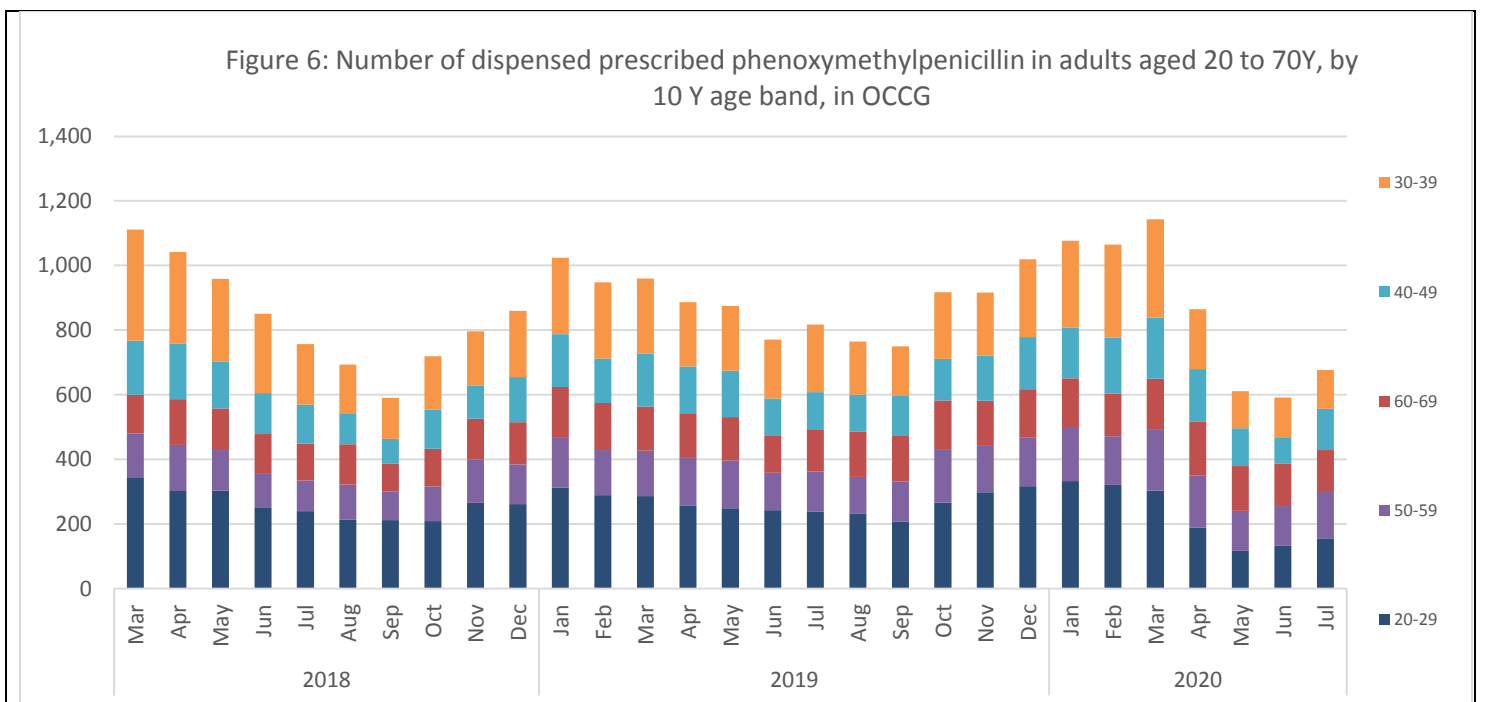
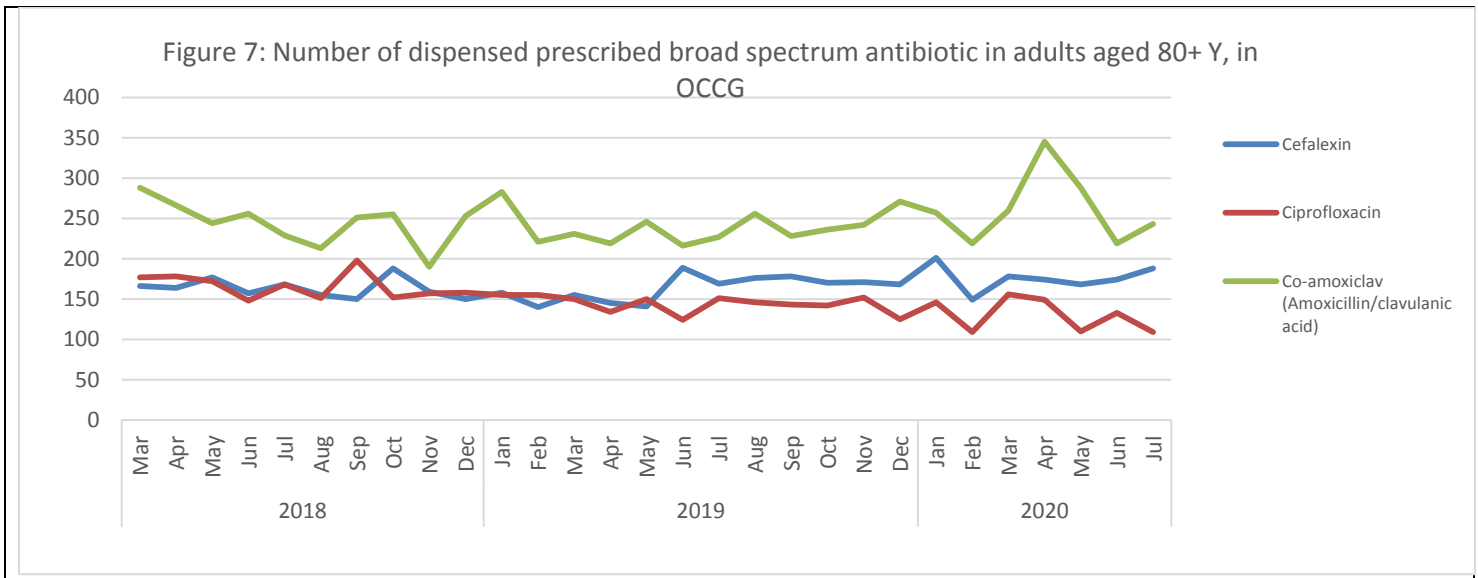


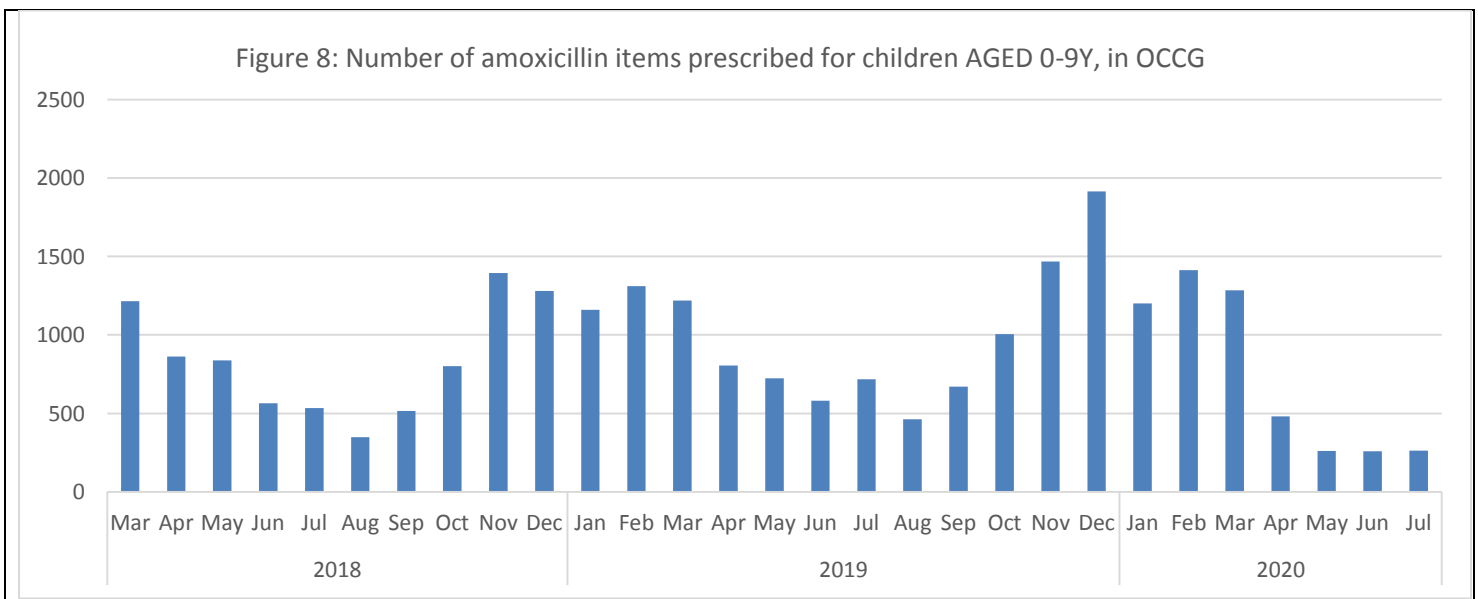
Figure 6 above shows phenoxymethylpenicillin prescribing in adults aged 20-70 years. The biggest reduction of phenoxymethylpenicillin prescribing in adults is seen in the age group 20-29 and 30-39 years. One of the possible contributing factors may be that social distancing restriction has led to reduced transmission of RTIs including viral sore throat in the community.

As shown in Figure 7 below, adults aged 80+Y reported an unseasonal increase in the number of broad-spectrum antibiotics, co-amoxiclav and cefalexin, in April 2020. It is not possible to attribute this reported increase in broad-spectrum antibiotic usage to indication although this is likely to be for UTI and may be appropriate antibiotic use if for complicated UTI. It is possible that remote consultation pathways resulted in more cautious management of suspected UTI with increased broad-spectrum use. Prescribers are reminded that appropriate choice should be based on [local guidelines](#) and informed by data on antibiotic sensitivity of corresponding bacteria.



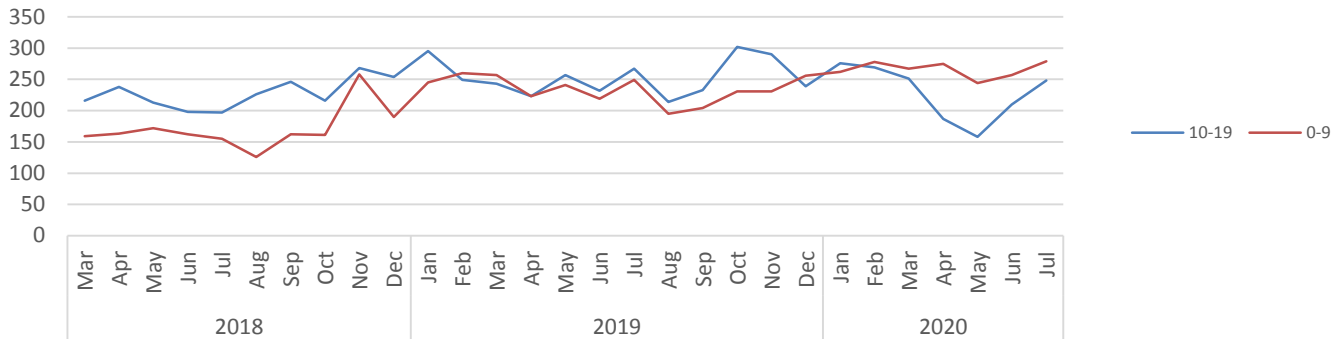
Antibiotic Prescribing in Children

Unsurprisingly, amoxicillin prescribing has reduced to seasonally low levels in April and onwards, as depicted in figure 8. This is attributed to reduced transmission rates of RTIs, which are mostly viral, as a direct result of closures of schools and childcare settings.



Similarly, as shown in figure 9 below, there was a substantial decrease in antibiotics prescribing to treat UTI in children and young adults since the social restrictions were in place in April through to May; and increased again to seasonal levels when social restrictions were lifted.

Figure 9: Number of dispensed prescribed antibiotic items (cefalexin, nitrofurantoin, trimethoprim) to treat UTI in children and young adults aged 0-19Y, in OCCG



A review of *C.difficile* Infections in OCCG, During COVID-19

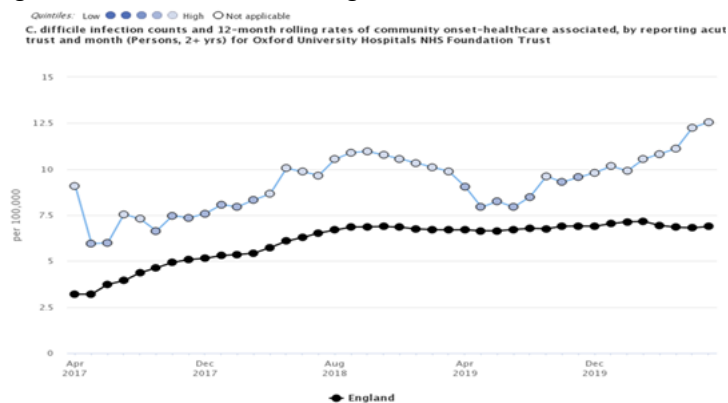
For Public Health England (PHE) mandatory reporting, *C.difficile* infections are categorised into 4 groups: Hospital onset healthcare associated (HOHA), Community onset healthcare associated (COHA), Community onset indeterminate association (COIA) and Community onset community associated (COCA). All samples taken by GP's are community onset, but it depends on previous healthcare interaction and number of days as an inpatient when the sample was taken, that will determine whether hospital samples are HOHA, COHA, COIA or COCA.

According to PHE's mandatory surveillance it is not clear how much the COVID-19 pandemic has affected counts and rates of CDI. The most recent quarter (April to June 2020) compared to the same period in the previous year (April to June 2019) shows a 10.3% decrease in the count of all reported cases while the incidence rate decreased by 10.3% to 19.8 cases per 100,000 population.

However, on review of Oxford University Hospital rates, it can be seen that COHA rates are increasing per 100,000 population and above national trend, which warrants a review (Figure 10).

(Community-onset healthcare-associated C. Diff definition: Date of onset is ≤ 2 days after admission and the patient was admitted to the trust in the 28 days prior to the current episode days, where day 1 is date of discharge)

Figure 10: COHA 12 month rolling data from OUH NHS Trust PHE data



The numbers of **Primary Care** *C.difficile* samples attributed to OCCG are low, and there has been no significant increase in numbers from March to October 2020 compared with the same time period in 2019.

There have been several initiatives with the aim to reduce the prescribing of antibiotics, particularly quinolones and cephalosporins, and increasing public awareness of the appropriate treatment for common illnesses, particularly coughs and colds. These have led to a steady reduction in antimicrobial prescribing in Primary Care and an overall reduction in *C.difficile* infections.

Antimicrobial prescribing will continue to be reviewed both in primary and secondary care compared to *C.difficile* infections, not only to monitor progress but for a continued focus and awareness on AMR and learning from prescribing data during peak of COVID-19 outbreak.

Guidance and Resources

This section informs and/ or reminds prescribers and HCPs of the various national and local antimicrobial guidelines and resources that are currently available.

Respiratory Tract Infection (RTI)

(1) [NICE NG165 \(April 2020\): COVID-19 rapid guideline - managing suspected or confirmed pneumonia in adults in the community](#)

80% of hospital admissions in Mar/Apr 2020 had antibiotics for Community Acquired Pneumonia (CAP). It is difficult to determine whether pneumonia has a COVID-19 viral cause or a bacterial cause (either primary or secondary to COVID-19) in primary care, particularly during remote consultations. However, as COVID-19 becomes more prevalent in the community, patients presenting with pneumonia symptoms are more likely to have a COVID-19 viral pneumonia than a community-acquired bacterial pneumonia. Prescribers are also reminded that CRB scoring is not advised and neither is use of CRP testing.

As COVID-19 pneumonia is caused by a virus, antibiotics are ineffective. Do not offer an antibiotic for treatment or prevention of pneumonia if COVID-19 is likely to be the cause and symptoms are mild. Offer an oral antibiotic for treatment of pneumonia in people who can or wish to be treated in the community if:

- the likely cause is bacterial; or
- it is unclear whether the cause is bacterial or viral and symptoms are more concerning; or
- they are at high risk of complications because, for example, they are older or frail, or have a pre-existing comorbidity such as immunosuppression or significant heart or lung disease (for example bronchiectasis or COPD), or have a history of severe illness following previous lung infection.

Where bacterial pneumonia is suspected or in people who are at high risk of developing complications, prescribe the following:

- **doxycycline** 200 mg on the first day, then 100 mg once a day for 4 days (5-day course in total); doxycycline should not be used in pregnancy. **Prescribing doxycycline as the first choice will help to reduce the risk of *C. difficile* infections.**
- alternative: amoxicillin 500 mg 3 times a day for 5 days.
- Do not routinely use dual antibiotics.
- For choice of antibiotics in penicillin allergy, pregnancy and more severe disease, or if atypical pathogens are likely, see recommendations within the full guidance.

Inappropriate antibiotic use may reduce availability if used indiscriminately, and broad-spectrum antibiotics in particular may lead to *C difficile* infections and AMR.

See Oxfordshire CALM clinic referral guidance on Clarity Teamnet [here](#).

NICE have also published [COVID-19 rapid guideline \(NG139\): antibiotics for pneumonia in adults in hospital](#).

Urinary Tract Infection (UTI)

(1) [PHE \(updated September 2019\): Urinary tract infection: diagnostic tools for primary care](#)


The local SCAN guidance on [UTI](#) is based on the PHE guidance. Prescribers are reminded that

- Women over 65 years: Do not dipstick test
- Nitrofurantoin (if eGFR 45mL/min/1.73m² or more) is first line choice in non-pregnant women with uncomplicated UTI; trimethoprim can be used if low risk of resistance. Second line choices are pivmecillinam (if not penicillin allergic) or fosfomycin.

(2) Diagnosis of UTIs in the elderly (>65years)

The presence of bacteria in the urine of the elderly people does not necessarily mean that they have a urine infection which requires treatment with antibiotics. By 80 years, half of older adults in care and most with a urinary catheter, will have bacteria present in the bladder/ urine without having an infection. This asymptomatic bacteriuria is not harmful, and although it causes a positive urine dipstick, antibiotics are not beneficial and may cause harm and increase antibiotic resistance.

Urine dipsticks should therefore **NOT** be used to diagnose UTIs in people >65years. Symptoms and signs should be used to determine the most appropriate management as per the [Adult Antimicrobial Guidelines](#). If a UTI is suspected, a mid-stream urine sample should be obtained and sent for culture, prior to the initiation of antibiotics.

Diagnosis of UTI using dipstick?	
Consider diagnosis of a UTI if the following signs / symptoms are present:	<ul style="list-style-type: none"> • Dysuria alone Or TWO or more of the following symptoms • Temperature 1.5°C above patient's normal temperature, twice in last 12 hours • New frequency or urgency • New incontinence • New or worsening delirium or debility • New suprapubic pain • Visible haematuria <p>If fever and delirium/ debility only, consider other causes before treating for a UTI.</p>

National Resources

(1) WAAW resources toolkit

With the challenge of responding to the ongoing COVID-19 pandemic, a scaled back approach to WAAW local campaigns has been considered in the resources toolkit that has been published and available [here](#). It focuses on digital means of communicating including new digital resources for primary and secondary care.

(2) TARGET toolkit

TARGET stands for: Treat Antibiotics Responsibly, Guidance, Education, Tools. The toolkit helps influence prescribers' and patients' personal attitudes, social norms and perceived barriers to optimal antibiotic prescribing. It includes a range of resources that can each be used to support prescribers' and patients' responsible antibiotic use, some examples as below:

- [Leaflets to share with patients](#)

- [UTI resource suite](#) – including diagnosis tools and audit templates
- [Antibiotic and diagnostic quick reference tools](#)

(3) PrescQIPP dashboards

Data dashboards to support antimicrobial stewardship in primary care are published as open access by [PrescQIPP AMS Hub](#) in collaboration with NHS England and NHS Improvement, and will be publishing a new dashboard to support primary care clinician led stewardship during the COVID-19 pandemic. Use the link above to avoid the requirement to register or login.

Local Resources

(1) SCAN guidelines

Guidelines are now available via the MicroGuide app (see instructions on how to access [here](#)) or web viewer <https://viewer.microguide.global/SCAN/SCAN>. Please see local Oxfordshire [Front Sheet](#) to be used along with the SCAN Antimicrobial Guidelines, which covers both adult and paediatric indications.

Microguide have now published version 2.1 on 19th October, and key changes are as follows:

- Formatting in the genital tract condition section
- Oral candidiasis and animal bites pages updated
- Standardisation of *C. diff* risk phrasing
- Analgesia statement added to paediatric tonsillitis and otitis media sections
- Antimicrobial alerts folder created and Fluoroquinolones MHRA alert added (this alert used to be on landing page for pdf version of guidelines).

(2) Prescribing Dashboard

The OCCG [prescribing dashboard](#) includes information on practice performance by RAG rating on total antibacterial items per STAR PU and high risk antimicrobial items (cephalosporins, quinolones and co-amoxiclav) as a percentage of all antimicrobial items. The dashboard is updated monthly.

(3) Hydration Project

Selected care homes took part in a [hydration project](#) facilitated by the Academic Health Science Network (AHSN) and supported by the Care Home Support Service (CHSS). Care homes were encouraged to introduce initiatives such as structured drinks rounds to improve hydration of their residents as well as being encouraged to focus on symptoms rather than dipstick results when considering if a resident has a UTI. The presence of UTI symptoms were communicated to the GP using a standard proforma which alerted the GP to exactly which symptoms were present in an individual. The teaching from the project is still being promoted in Oxfordshire care homes by the CHSS.

For more information of the hydration project in Oxfordshire please see the following links:

- [Nutrition and Hydration Considerations for Care Homes - poster](#)
- [OCCG Nutrition and Hydration pack for Care Homes to use during the Covid 19 Pandemic](#)
- [Patient Information Leaflet: Hydration and Covid 19 in adults](#)

(4) UTI service in community pharmacies

OCCG also commissions local community pharmacies to provide a UTI service which allows pharmacists to treat non-pregnant women aged 16 to 64 years old suffering from an uncomplicated UTI with nitrofurantoin via a Patient Group Direction (PGD). The list of pharmacies providing this service, along with more details from the PGD, can be found in the UTI Service Summary document [here](#). It is recommended that the pharmacies are contacted prior to referring appropriate patients onward to ensure the pharmacist working on the day is able to provide the service.

(5) Advice lines

- **General microbiology:** Where a 'best guess' therapy has failed or special circumstances exist, advice can be obtained during normal working hours from the OUH Duty Microbiologist on 01865 220880 or bleep 4077 via JR switchboard. Out of hours advice can be obtained by contacting the Microbiology SpR on call via the JR switchboard. There is also an email for non-urgent questions: microbiology.advice.OUH@nhs.net.
- **Specialist paediatric microbiology / infectious diseases:** For advice contact the Paediatric ID Registrar bleep 4374 via JR switchboard (01865 741166). Out of hours specialist paediatric microbiology / infectious diseases advice can be obtained by contacting the Paediatric ID Consultant on call via the JR switchboard.
- **Urinary and Genital Tract:** Advice on urogenital infections is available from the Sexual Health Clinic, Churchill Hospital 01865 231231 Monday to Friday 0900-1800. Also see [Oxfordshire CCG Referral Guidelines: Urology](#) and local guideline on [Investigation and Management of Vaginal Discharge in Adult Women](#).

Educational Events/ Training

(1) BOB webinar: Antimicrobial prescribing in primary care – a 2020 update

In conjunction with WAAW, Buckinghamshire, Oxfordshire and Berkshire West (BOB) CCGs are joining forces to deliver presentations on antibiotic prescribing in primary care; to increase awareness of prescribers on antimicrobial resistance and to promote continuous good antimicrobial stewardship in these challenging times.

Date: Tuesday 17th November 2020

Time: 1pm to 2pm

Topics include: SCAN guidance and Microguide; Primary care prescribing data; Antimicrobial audits/ projects in BOB CCGs; WAAW resources and toolkit; Health economy i.e. *C. Difficile* infections in OCCG and Links with the acute trusts. The presentations will be followed by a Q&A session.

Speakers:

- Dr Louise Dunsmure, Consultant Pharmacist - Antimicrobial Stewardship, Oxford University Hospitals NHS Foundation Trust (Chair)
- Dr Meenu Paul, Assistant Clinical Director Quality, Oxfordshire CCG
- Sanjay Desai, Associate Director of Medicines Optimisation, NHS Berkshire West CCG
- Aoife Hendrick, Chief Pharmaceutical Officer's Clinical Fellow, Public Health England AMR Programme
- Hilary Munube, Infection Prevention & Control Lead, Oxfordshire CCG
- Claire Brandish, Anti-Infectives Pharmacist, Buckinghamshire Healthcare NHS trust

This event is open to all primary care prescribers in BOB CCGs. PCN and community pharmacists are also welcome. No registration is required. To join the Live Event click [here](#) on the day and you will be directed to join the webinar. The presentation will be recorded and will be available online for attendees and those who are unable to attend the webinar.

(2) Royal Pharmaceutical Society (RPS): Antibiotic Awareness Week: Hot Topics and Q&A

Date: Thursday 12 November 2020

Time: 7pm - 8pm

This event is open for RPS members only. For more details see link [here](#).

(3) RPS Antimicrobial Stewardship Training Programme (England)

Recruitment for current cohort is now closed; but RPS members are encouraged to join the waiting list if interested. For more details of this Programme see link [here](#).

(4) The Royal College of General Practitioners (RCGP): COVID-19 and pneumonia

This 10 minute e-learning module summarises current guidance for members of the primary care team in assessing COVID-19 patients and helping them to determine whether they need admission to hospital. See link [here](#) for details.

(5) HEE AMR e-learning

See link [here](#) for the AMR and Infections programme which contains useful resources such as AMR toolkit, e-learning, case studies and video clips.

So What?

- To avoid inappropriate antibiotic prescribing, we recommend:
 - Follow latest [NICE guidelines](#) to optimise antibiotic treatment of pneumonia which may have a COVID-19, viral or bacterial cause.
 - Treat coughs, fever and breathlessness related to COVID-19 in line with latest [clinical guidance](#), not necessarily with antibiotics. Please consider the COVID-19 and Flu pathway for diagnosis, testing and clinical management.
 - Explain to patients that antibiotics do not prevent or cure viral infections including COVID-19. Antibiotics can cause side-effects, including nausea and diarrhoea. Antibiotics use can also increase the risk of spreading infections that are caused by bacteria resistant to antibiotics.
 - Ensure use [SCAN guidelines](#) for UTI.
- To promote awareness this WAAW, we recommend the following priority actions:
 - As an individual: [choose a new or renew your pledge](#) on the Antibiotic Guardian website and encourage five other people to do the same.
 - As an infection lead:
 - if you only do **TWO** things this WAAW, [register your organisation's](#) planned activities for WAAW **and** share the WAAW [digital resources](#) for healthcare workers;
 - if you only do **THREE** things this WAAW then [choose a pledge](#) on the antibiotic guardian website **and** share the [digital resources](#) for health care workers **and** watch [the recorded](#) 'Planning your local WAAW/EAAD 2020' workshop;
 - if you only do **FOUR** things this WAAW then [choose a pledge](#) on the antibiotic guardian website **and** [register your organisation's](#) planned activities for WAAW **and** share the [digital resources](#) for health care workers **and** watch [the recorded](#) 'Planning your local WAAW/EAAD 2020' workshop.
- Join the BOB antimicrobial webinar and/ or other educational events on AMR where possible, or watch the BOB webinar recording if you cannot join the event.

