Antimicrobial stewardship and COVID-19

David Croser

Dental Advisor, BDA Indemnity

The NICE guidelines on antimicrobial stewardship published in 2015 provided a starting point for the most recent public health awareness exercise in the UK to reduce the amount of unnecessary prescribing to patients.¹

Dentists along with other healthcare providers have a role to play in protecting patients from harm caused by unnecessary antimicrobial use, and to combat antimicrobial resistance (AMR): the loss of effectiveness of any anti-infective medicine, including antiviral, antifungal, antibacterial and antiparasitic medicines. Farmers have also responded by reducing the use of antimicrobials used in animal husbandry.

But this is nothing new. Earlier European public health initiatives have included European Antibiotic Awareness Day which started in 2008 to raise awareness of the need for prudent antibiotic use. The event has grown in scope, and this year World Antimicrobial Awareness Week runs from 18 to 24 November.²

Progress achieved

Since 2014, the UK has reduced its use of antibiotics by more than 7% and sales of antibiotics for use in food-producing animals have dropped by 40%, but the number of drug-resistant bloodstream infections have increased by 35% from 2013 to 2017.

In 2019, the government published a 20-year vision paper and a five-year national action plan setting out how the UK would strengthen its fight against antimicrobial resistance (AMR). The BDA urged NHS England to commit to 'properly funded urgent slots' to reduce the pressure on dentists to issue unnecessary dental prescriptions.³

Modified prescribing patterns

At the time, dentists were responsible for 5.2% of all prescriptions and they were encouraged to use FGDP(UK) Antimicrobial Prescribing Self-Audit Tool,⁴ developed by the BDA and the Faculty of General Dental Practice, which had been designed for use in conjunction with the Faculty's Antimicrobial Prescribing for General Dental Practitioners guidance.⁵

There is an obligation for all NHS contractors to follow NICE guidance, and it could well have been expected that dentists would be further able to reduce the number of prescriptions being written. But then along came COVID-19 and by the end of March 2020 most dental practices had closed to prevent transmission of the virus. The main concern was from aerosol-generating procedures (AGPs) and the risk to both the dental team and patients.

Responding to the pandemic

During a webinar on 3 April, the CDO for England said no dental practices should carry out any face to face treatment once the NHS Urgent Dental Care (UDC) hubs had opened. Dentists were now to manage their patients via remote consultation using the following strategy:

- Risk assessment and triage of the patient
- This might also include advice, analgesics or antimicrobials where appropriate in line with prescribing guidelines (the now familiar acronym of the three As, AAA), or
- The arrangement of a face-to-face consultation and/or treatment – by the provider if appropriate or at a designated UDC hub.

Sadly, the hubs did not all open on the same date and many dentists found them difficult to access; referrals had to be sent via an NHS email account, which some private practitioners struggled to obtain, despite the fast-tracking of applications. Some people found there was no UDC care available in their area, whilst a lack of PPE meant that

many of the hubs were only able to complete non-AGP procedures, so a patient in pain could only be offered an extraction.

The oral conditions considered eligible for treatment at a UDC hub included:

- Life-threatening emergencies, e.g. airway restriction or breathing/swallowing difficulties due to swelling
- Trauma including laceration and/or dentoalveolar injuries, for example avulsion of a permanent tooth
- Significant swelling that is worsening
- Post-extraction bleeding uncontrolled by local measures adopted by the patient
- Dental conditions causing acute and severe systemic illness
- Severe dental and facial pain that cannot be controlled by self-help advice to patient
- Fractured teeth or a tooth with pulpal exposure
- Suspected oral cancer
- Oral conditions likely to exacerbate systemic medical conditions.

Patients in pain

With dental surgeries closed, anyone with dental pain had to resort to phoning round surgeries, leaving messages on answering machines and hoping for an early response. Some took longer than expected. In desperation, people with a dentist's private mobile number are likely to have contacted them for help, having been in pain for several days as well as dealing with lockdown restrictions. The national media also picked up on the plight of members of the public resorting to desperate measures in the absence of professional help and taking out their own teeth.⁶

Irrespective of any subsequent treatment at a UDC hub, it is likely that many more people were prescribed antimicrobials during the first six months of the pandemic than would otherwise have been the case; a situation which the FGDP(UK) guidance seemed to anticipate in the third criterion for antimicrobial prescribing in primary care:

1. As an adjunct to the management of acute or chronic infection
2. For definitive management of an infective disease
3. Where definitive treatment has to be delayed due to referral to a specialist.

Unhappy dentists

It is a credit to the dental profession that the requirement to delay treatments for their patients at the start of the pandemic sat uncomfortably with clinicians who would normally be using their skills to assess and relieve pain by clinical intervention rather than postponing it by prescribing an antimicrobial. The earlier overarching message to adhere to guidance to reduce AMR had become hard wired in the profession who now needed to depart from the established guidance in the broader public interest to contain the spread of COVID-19, and so created a degree of cognitive dissonance. Consequently, the number of antibiotics dispensed by community pharmacists in England relating to NHS dental prescription forms in May 2020 was 18.4% higher than in May 2019.⁷

Many dentists sought advice from the BDA about best practice to remotely assess a patient's signs and symptoms. Here the use of mobile phone technology proved invaluable. It allowed patients to show, as best they could, broken teeth, signs of swelling and oral manifestations of disease to help the clinician to evaluate these remote images, alongside the history of their symptoms before making a diagnosis (often provisional) and any logical decision about prescribing. This substitute for a face to face clinical examination, which dental training and established 'best practice' had reinforced, undeniably created anxiety for both patient and dentist alike. Patients were suffering and their dentists were mandated by restrictions. Prescribing, without seeing a patient was contrary to what was familiar and established best practice. The compromise was one of many that arose in response to the pandemic.

Particularly problematic was the fact that some UDCs expected the patient to have had at least one course of antibiotics before accepting a referral for face to face care. Dentists were also managing an influx of unfamiliar patients who might otherwise have been treated privately or had no dentist at all. In addition, many people were spending lockdown away from their usual place of residence.

Protect yourself from compromise

In unusual circumstances, if a clinician decides it is in the best interests of the patient

to intentionally deviate from a recommended clinical pathway, the rationale for such a departure must be clearly documented in a way that could enable the clinician to justify their decision to a third party, if required to do so at a later date. At the forefront of any action should be the ethical pillars of always working in the patient's best interests balanced with the need to do no harm.

It is likely that practice software systems do not all have remote access, creating a need for the dentist to make a contemporaneous, attendance note of their remote consultation with a patient and thereafter develop a method to subsequently update that patient's clinical record in the practice. The attendance note would need to be initialised by the dentist and if present, any colleague participating in the call. The date, time and duration of the call should be recorded.

It is important to be aware of the data protection implications for the completion and temporary storage of any record that includes sensitive, healthcare data, and the need to maintain patient confidentiality at all times. The safe retention and authenticity of the records kept during consultations with patients is critical to managing any challenges (complaints, claims or regulatory investigations) made by patients subsequent to their care, whether that was provided remotely or, now again, face to face. Unfortunately, a previous grateful public can decide to look back differently at the dental care they accessed, or failed to obtain, for a variety of reasons. Good records are vital to demonstrate the professionalism and care you have given during these challenging times.

Future improvements

The remote management of patients using tele-medicine is probably here to stay and can be enhanced. Patients can share images with the clinician using their phones. They can also provide images to help you monitor the progress of any treatment suggested.

Clinicians could routinely share radiographs and files on a data stick given to the patient who could then share them with other clinicians in an emergency. Think how useful a recent set of radiographs could be when a patient you have never seen before calls you in extreme pain because they cannot get to see their usual dentist. The NHS provides digital access to Summary Care records which are extracted from GP medical records and accessible to the patient and authorised staff in other areas of healthcare.⁸ Dentistry has yet to be given access. Using

email, the same files make it easier to refer patients to a specialist and to follow up on the outcomes and transfer the details to the patient's record in a timely fashion.

The adjustments to familiar practice caused by the pandemic may prompt practice owners to contact their software provider to find ways to enable remote access by those in the dental team who need to complete records and who, much to their surprise, have found that some elements of their work, like many others in employment, can be conducted from home.

This applies equally to well-trained reception staff and practice managers who may not be registered clinicians but whose participation in patient care involves making the often complex arrangements for patients to be seen by a clinician when needed. Non-registrants need to be trained to ensure they do not inadvertently stray into 'the practise of dentistry' by providing well-intentioned clinical advice without the authority of a clinician.

World Antimicrobial Week is a good moment to reflect on the experience of the past six months, to see if you can get back on track with reducing the number of prescriptions issued and seeing what other modifications can be made to make dentistry even safer in the future when other new diseases arise. ♦

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