NHS
Sheffield
Clinical Commissioning Group

Prescribing issues – A brief guide for dental practitioners

This guide offers advice to dental practitioners on prescribing issues, common medications with oral health side effects, drug interactions, the management of patients on antiplatelet and anticoagulants and emergency drugs kits. It also signposts dental practitioners to the latest guidance from the National Institute for Health and Care Excellence (NICE) on appropriate antimicrobial stewardship to ensure the effective use of antimicrobials.

Prescribing requests to GPs

Dentists are able to prescribe for preparations listed in the dental practitioners' formulary. If medication is required for treating/preventing a dental condition then the prescribing and monitoring should be carried out by the dentist. There may be occasions when the ***specialist** dental services request the GP to continue the supply of oral health preparations, for example for a vulnerable person who is known to be on repeat medication from their GP. In such cases the dentist should liaise with the GP directly to gain agreement that they are happy to prescribe. They should then provide as a minimum:

- Name and strength of preparation to be prescribed and frequency
- The quantity of toothpaste that should be used and how long the tube of toothpaste should last
- Intended duration of treatment, including the date of the next dental review
- Any supporting information to ensure the GP feels competent to prescribe

*Community specialist dental service clinics in Sheffield are run from; Firth Park, Wheata Place, Heeley Dental Clinic, Manor Dental Clinic, Jordanthorpe Dental Clinic, Limbrick Dental Clinic, Talbot Special School and Norfolk Park Special School. See appendix for template letter used by these clinics.

Medications that can affect oral health

Common adverse effects of medication on oral health and examples of groups that are associated with these are tabled below.

Please note this list is not exhaustive; also please see individual Summary Product Characteristics

Potential side effects on oral health	Medication	Practical advice
Bisphosphonate related osteonecrosis of the jaw (BRONJ). NB. This primarily occurs post dental surgery	Bisphosphonates. (This is very rare when bisphosphonates are used in osteoporosis treatment - estimated 1 in 10,000 to 1 in 100,000, but	All cancer patients receiving intravenous bisphosphonates should have a dental check-up before bisphosphonate treatment. Urgent bisphosphonate treatment should not be delayed, however, a dental check-up should be carried out as soon as possible. Prior to starting IV bisphosphonate treatment patients should be given a reminder card informing them about the risk of BRONJ Non cancer patients who start IV or oral

	occurs more frequently in oncology treatment and is dose-dependent. The risk of BRONJ may be greater for patients receiving intravenous bisphosphonates)	bisphosphonates should have a dental examination before starting treatment if they have poor dental health, although it is good practice for all patients to have had a recent examination so any treatment can be carried out prior to starting the bisphosphonate. All patients should be encouraged to maintain good oral hygiene, have routine dental check-ups, and immediately report any oral symptoms such as dental mobility, pain or swelling. Follow guidance in Delivering Better Oral Health https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/367563/DBOHv32014OCTMainDocument_3.pdf
Osteonecrosis of the jaw (ONJ)	Denosumab (60mg – rare, 120mg – common)	It is important to evaluate patients for risk factors for ONJ before starting treatment (NB. the Metabolic Bone Centre ensures this is done prior to commencing treatment). A dental examination with appropriate preventive advice is recommended prior to treatment with denosumab in patients with concomitant risk factors. All patients should be encouraged to maintain good oral hygiene, receive routine dental check-ups, and immediately report any oral symptoms such as dental mobility, pain or swelling during treatment with denosumab. Follow guidance in Delivering Better Oral Health https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/367563/DBOHv32014OCTMainDocument_3.pdf
Increased risk of dental caries	Sugar containing liquid medication	Prescribers should consider using a sugar free (SF) preparation wherever possible if a liquid medication is required. Follow guidance in Delivering Better Oral Health https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/367563/DBOHv32014OCTMainDocument_3.pdf
Dry mouth (xerostomia)	Anticholinergics, antihistamines, stimulant medication (dexamfetamine/ methylphenidate), antipsychotics* and tricyclic antidepressants. *See clozapine below	Review continued need for medication in conjunction with GP to consider alternative options. If continued need required, consider self-help techniques (e.g. chewing sugar free gum, regularly sipping on water). Salvia supplementation may be prescribed if above measures not successful. See dental formulary https://www.medicinescomplete.com/mc/bnf/current/PHP9920-dental-practitioners-formulary.htm Patients who need to continue on medication causing a dry mouth may be more prone to tooth decay, consider using fluoride preparations. Avoid prescribing acidic preparations in dentate patients. Examples of pH neutral prescribable preparations are: Artificial saliva dental oral spray DPF – oral spray BioXtra® – gel and spray Follow guidance in Delivering Better Oral Health https://www.gov.uk/government/uploads/system/uplo

		ads/attachment_data/file/367563/DBOHv32014OCT MainDocument_3.pdf
Dyskinesia and dystonia characterised by abnormal movements of the tongue or facial muscles sometimes associated with abnormal jaw movements.	Antipsychotic (extrapyramidal side effects greater with the first generation antipsychotic drugs – See BNF for details on side effect profile)	As symptoms can hinder dental care and examination, management of these symptom should be discussed with the overseeing clinician
Hypersalivation	*Clozapine	Refer to overseeing specialist
Gastrointestinal ulceration, including oral	Nicorandil (rare)	All non-healing oral ulcers should be urgently referred for further assessment and investigation. Benzydamine 0.15% mouthwash or spray may be used for symptomatic relief. Once a nicorandil related oral ulcer has been diagnosed, consideration of dose reduction or withdrawal of nicorandil on discussion with the GP may be appropriate. However, this may depend on a suitable alternative medication being available. Nicorandil reduction/withdrawal should take place only under the supervision of the GP or cardiologist.
Gingival enlargement.	Calcium channel blockers (depends on drug, in the main, very rare) phenytoin (rare)	Implement preventative measures including hygiene therapy. If symptoms still persist liaise with overseeing GP/clinician.
Oral candidiasis	Inhaled corticosteroids (very common)	Where appropriate, patient to use a spacer device to administer the inhaled corticosteroid, and counsel on good inhaler technique. Patients can be signposted to the community pharmacist for advice on inhaler technique. After each dose advise to rinse with water (or cleaning child's teeth) to remove any drug particles.
Teeth grinding (bruxism)	Psychotropic medicines e.g. antidepressants and antipsychotics (uncommon)	If symptomatic and persistent, consider biteguard and physiotherapy,

Emergency drugs kit

Dentists should base their decision on what drugs to carry in their emergency drugs list based on their own expert opinion and on the evidence available. Many dental practices and the CPR teams that

visit them have historically referred to the Resuscitation Council (UK) guidance. The Council has now re-published its cardiac guidance but this update does not include an advised list of emergency drugs. The Scottish Office (the National Dental Advisory Committee of the Scottish Government) published the following list in 2015, which reflects what was in the historical Resuscitation Council document, adapted locally to reflect current licensed preparations;

- Glyceryl trinitrate spray (400 micrograms per metered dose)
- Salbutamol inhaler (100 micrograms per activation)
- Adrenaline (1 ml ampoules or pre-filled syringes of 1:1000 solution for intramuscular injection) *Note that pre-filled syringes are useful in an emergency situation for ease of use.*
- Aspirin (300 mg dispersible tablets)
- Glucagon (for intramuscular injection of 1 mg)
- Oral glucose/sugar e.g. non-diet fizzy drinks, glucose gel, powdered glucose and sugar lumps
- Midazolam buccal liquid * (Buccolam® 2.5mg, 5mg, 7.5mg and 10 mg oromucosal solution is licensed in children under 18 years)
- Oxygen cylinder: at least 30 minutes supply at 15 litres/minute.

*Midazolam/Buccolam® –medication should be given if seizures are prolonged (convulsive movements lasting 5 minutes or longer). Buccolam® might be usefully administered while waiting for ambulance treatment, but the decision to do this will depend on individual circumstances given the patient's medical history. Local community pharmacists can supply Buccolam® against a written requisition (an FP10CDF form should be used). Forms can be obtained from Primary Care Support England, phone number – 01302566620 NB. Midazolam is a schedule 3 controlled drug but in this form (Buccolam®) it does not require storage in safe custody.

The full Scottish guidance is available here:
www.gov.scot/Publications/2015/01/8495/downloads#res469019

Each practice must make a decision as to what it carries. Dental practices should have Standard Operating Procedures (SOP) in place to manage the safe use and disposal of Emergency Medications. SOPs should include:

- Ordering
- Storage - All emergency drug kits should be stored in a locked drugs cabinet or cupboard when clinics are closed.
- Stock and date checking
- Disposal
- Training and competency

Managing a dental patient taking an anticoagulant or antiplatelet drug(s)

Advise patients on anticoagulants or antiplatelets to inform dental practitioners of treatment at each dental appointment.

The Scottish Dental Clinical Effectiveness Programme (SDCEP) has produced guidance on the management of dental patients taking anticoagulants or antiplatelet drugs.

See link for quick reference guide - http://www.sdcep.org.uk/wp-content/uploads/2015/09/SDCEP-Anticoagulants-Quick-Reference-Guide.pdf

See link for full guidance – http://www.sdcep.org.uk/wp-content/uploads/2015/09/SDCEP-Anticoagulants-Guidance.pdf

This guidance aims to provide clear and practical advice to enable the dental team to manage and treat this patient group. Please note, this reference does not include edoxaban which is a once a day

DOAC (also known as NOAC). Dosing schedule advice for dental procedures for rivaroxaban should be followed for patients taking edoxaban, based on local expert opinion.

- Any bleeding complications following this advice should be reported through normal mechanisms (e.g. yellow card, overseeing clinician)

Low Molecular Weight Heparins (Dalteparin, Enoxaparin, Tinzaparin) - for procedures likely to cause bleeding

Management depends on whether the patient is on a prophylactic or treatment dose.

Prophylactic doses for dalteparin (the LMWH currently used in Sheffield)

Dalteparin prophylactic doses	
Weight <45kg or eGFR <20ml/min/1.73m^2	2500 units OD
Weight 45-99kg	5000 units OD
Weight 100-150kg	7500 units OD
Weight >150kg	5000 units BD

- Ensure LMWH is injected in the **evening** (if taking it at a different time of day, doses may be moved forward by up to 4 hours each day, liaise with overseeing prescriber).
- Arrange dental appointment to be in the morning.
- If no problems/bleeding following dental work, restart LMWH in the evening at least 4 hours post-procedure.

Treatment doses *(i.e. any dose greater than a prophylactic dose)*

- If injecting LMWH once daily, take it in the **morning** (if taking it at a different time of day, doses may be moved forward by up to 4 hours each day).
- If injecting LMWH twice daily, continue at usual times.
- Arrange dental appointment to be in the morning.
- Omit LMWH on the morning of dental work.
- If no problems/bleeding following dental work, restart LMWH in the late afternoon/evening at least 4 hours post-procedure.

Note – If timing of injection is changing check who is administering the dalteparin, and liaise with the community nursing teams if necessary.

Common drug interactions

Please note this list is not exhaustive; also please see individual SPC and BNF

Medication	**Common interactions to consider (refer to BNF and individual SPCs for full list)**	**Suggested action**
Metronidazole	Warfarin	Avoid concomitant prescribing. If concurrent use cannot be avoided, contact the anticoagulant service provider to organise a reduction in the

	Cytotoxics (busulfan and fluorouracil)	warfarin dose and monitor appropriately. Discuss with overseeing oncologist
Penicillins (e.g. amoxicillin)	Warfarin – INR can be altered. Combined oral contraceptives	Liaise with the overseeing GP /clinician as it is recommended that the INR is checked 3–7 days after starting the new medication and the GP/clinician will adjust warfarin dose accordingly. No extra precautions required unless diarrhoea and vomiting occurs. Instruct the patient to seek advice from their GP if this occurs. (see BNF)
Antifungals: Fluconazole.	Increases anticoagulant effect of warfarin. Numerous other interactions, prescribers should refer to current BNF for full list.	Increase in anticoagulant effect is greater with larger doses and in the elderly. Liaise with the GP/clinican to ensure INR is monitored appropriately and warfarin dose adjusted accordingly. Advise patients to report any unexplained bruising or bleeding.
Antifungal: Miconazole (oral gel).	Increases anticoagulant effect of warfarin. Numerous other interactions, prescribers should refer to current BNF for full list	Avoid - potentially serious interaction. Use nystatin instead
NSAIDs (e.g. aspirin, diclofenac, ibuprofen)	Numerous interactions, prescribers should refer to current BNF for full list	Be aware of the potential increased bleeding time post-extraction. Local measures may suffice with good post-operative instructions. Do not discharge patients until good haemostasis post-surgery. If necessary consider a local haemostatic agent or suturing.
Macrolides (e.g. erythromycin, clarithromycin, azithromycin)	Numerous interactions, prescribers should refer to current BNF for full list	
Cephalosporins (e.g. cefalexin)	Certain cephalosporins can enhance the effect of warfarin	Cefalexin and cefradine are thought to be the safer cephalosporins. If a cephalosporin is required, increased awareness required. Please note there is an increased risk of opportunistic infections (e.g. C.difficile). The Sheffield Formulary has no specific indications for cephalosporins.

Tetracycline	Possible enhanced anticoagulant effect of warfarin Possible increase risk of benign intracranial hypertension with retinoids	Liaise with GP /overseeing clinician to monitor INR appropriately. Avoid concomitant use

Antibiotic Stewardship

Resistance to antimicrobials in increasing. In August 2015 NICE published good practice recommendations for the effective use of antimicrobials. Antibiotics should only be prescribed when this is clinically appropriate. Recommendations from the guidance include:

- When prescribing antimicrobials, prescribers should follow local or national guidelines on:
  - prescribing the shortest effective course
  - the most appropriate dose
  - route of administration.
- When deciding whether or not to prescribe an antimicrobial, take into account the risk of antimicrobial resistance for individual patients and the population as a whole.
- When prescribing any antimicrobial, undertake a clinical assessment and document the clinical diagnosis (including symptoms) in the patient's record and clinical management plan.
- For patients in primary care who have recurrent or persistent infections, consider taking microbiological samples when prescribing an antimicrobial and review the prescription when the results are available.
- For patients who have non-severe infections, consider taking microbiological samples before making a decision about prescribing an antimicrobial, providing it is safe to withhold treatment until the results are available.

The full guidance and recommendations are available at:
https://www.nice.org.uk/guidance/ng15/resources/antimicrobial-stewardship-systems-and-processes-for-effective-antimicrobial-medicine-use-1837273110469

Further guidance on prescribing is available from the Faculty of General Dental Practice:
http://www.fgdp.org.uk/content/publications/antimicrobial-prescribing-for-general-dental-pract.ashx

Antibiotic Guardian

Antibiotic resistance is one of the biggest threats facing us today. Without effective antibiotics many routine treatments will become increasingly dangerous. To slow resistance we need to cut the use of unnecessary antibiotics. Dentists are encouraged to make a pledge and become an antibiotic guardian to show commitment to support this health risk. Pledges can be made here - http://antibioticguardian.com/

References

Public Health England - Delivering better oral health: an evidence-based toolkit for prevention https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention#history

Electronic Medicines Compendium – SPC for alendronic acid - http://www.medicines.org.uk/emc/medicine/25809

Electronic Medicines Compendium – SPC for Prolia - http://www.medicines.org.uk/emc/medicine/23127

Clinical Knowledge Summaries - Candida – oral - http://cks.nice.org.uk/candida-oral#!scenario:1

Electronic Drug Tariff - http://www.ppa.org.uk/edt/March_2015/mindex.htm

MHRA Drug Safety Update - https://www.gov.uk/drug-safety-update/nicorandil-risk-of-gastrointestinal-ulceration

Antibiotic prescribing in General Dental Practice – Primary Dental Journal; Feb 14, vol 3, no 1

UKMi Q and A - Saliva substitutes: Choosing and prescribing the right product - https://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fwww.ukmi.nhs.uk%2Ffilestore%2Fukmias%2FNWQA190.6Salivasubstitutes.doc

NICE PH55 – Oral health: local authorities and Partners - https://www.nice.org.uk/guidance/ph55

Oral healthcare in prisons and secure settings in England - https://www.bda.org/dentists/policy-campaigns/research/patient-care/Documents/oral_health_in_prisons_eng.pdf

MHRA Bisphosphonates: use and safety - https://www.gov.uk/government/publications/bisphosphonates-use-and-safety/bisphosphonates-use-and-safety

The management of dental patients taking anticoagulants or antiplatelet drugs - http://www.scottishdental.org/management-of-dental-patients-taking-anticoagulants-or-antiplatelet-drugs-new-guidance-from-sdcep/

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With thanks to colleagues at STHFT

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Appendix 1

Our Ref:
Date:

FAO: Dr.

Dear Dr.

Re:

This patient attends our service for dental care and would benefit from the continuous use of 'prescription only' high fluoride toothpaste as a result of:

A high risk of developing dental decay due to:

- The nature of their disability ☐
- A dry mouth (xerostomia) ☐

A moderate risk of decay but there are significant problems/risks associated with managing dental decay for this patient due to:

- The nature of their disability ☐
- Dental phobia ☐

I am writing to request that you provide the following on a regular basis:

Duraphat 2800ppm toothpaste 75ml ☐
(0.619% sodium fluoride)
Required every 6 weeks

Duraphat 5000 ppm toothpaste 51g ☐
(1.1% sodium fluoride)
Required every 4 weeks

Directions:
Brush pea-size amount onto teeth and gums twice a day. Spit out. Do not rinse.

Warnings:
Store safely. Do not exceed recommended dose. When used as recommended there are no known side effects.

Review:
This patient is having regular review with us and we will contact you again by _____ if the medication is to be continued.

To support oral health in patients with genuine health vulnerabilities Sheffield LMC feels it reasonable for a GP to continue to prescribe fluoride toothpaste as long as all the above information is provided.

If you cannot issue the prescription or have any questions about the oral management of this patient please do not hesitate in contacting me at the above address.

Thank you for your help in this matter.

Yours sincerely,