

Dental Implications of Medical conditions

Anaemia

If severe anaemia, patients might feel very tired and short of breath: short appointments/delay elective treatment

- Do not lie your patient flat if shortness of breath
- Be aware that in extreme anaemia, bleeding can occur

Hypertension

ORAL SIDE EFFECTS OF MEDICATION

- Dry mouth: ACEinhibitors (Ramipril, enalapril),candesartan, tamsulosin, β -blockers (propranolol)
- Lichenoid reaction: ACE inhibitors, β -blockers
- Gingival hyperplasia: calcium channel blockers(nifedipine)
- Ulceration: nicorandil ,diuretics

IMPACT ON DENTAL MANAGEMENT

- Delay dental treatment or refer to hospital if very high blood pressure ✓ Referral to GP if a patient has hypertension
- Careful use of adrenaline on patients with hypertension
- Monitor blood pressure during dental treatment
Provide dental treatment in a relaxed atmosphere ✓ Be aware of the “white coat” syndrome

Angina

In dental practice...

- In patients anxious or with unstable angina, GTN spray might be used prophylactically
- Try to reduce anxiety and O₂ might be used through nasal cannula
- Up-to-date medical emergency training

- **Side effects of GTN spray** – vasodilator: increased sweat, urinary urgency, facial flushing and dizziness (**patient should use it always sitting down**)
- Triggers?

Myocardial infarction

Considerations for dental management

- Avoid dental treatment for 6 months after MI
- Liaison with cardiologists
 - Importance of good oral hygiene
 - Relaxed atmosphere to reduce anxiety
- Bleeding risk if anticoagulants/antiplatelets
- Always tell patients to bring their GTN spray

Heart failure

IMPACT ON DENTAL MANAGEMENT

- Be aware that dental treatment can precipitate angina, arrhythmias or worsen heart failure
- Local anaesthetic: aspiration technique
- On those patients with dyspnoea: patient should not lie flat
- Move patients upwards slowly (postural hypotension)
- Those with severe heart failure should not be treated in primary care
- Measurement of heart rate & oxygen supplement if necessary
- Inhalation sedation gives extra oxygen and provides anxiolysis

Liver disease

MEDICATIONS' PRESCRIPTION

- Hepatic impairment can cause reduced metabolism of drugs resulting in toxicity
 - In advanced hepatic disease, physician should be contacted prior to prescribing
 - NSAIDs are contraindicated and paracetamol can be taken in low dose
 - Miconazole is contraindicated. Erythromycin and metronidazole should be avoided
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- Recommendations for patients on anticoagulants or antiplatelets
 - Updated medical history and medication list
 - Assess if your treatment is likely to cause bleeding and whether is low or high risk of bleeding

- Find out if antiplatelet/anticoagulant therapy is only temporal; if so, can dental treatment be delayed?
- liaise with cardiologist/medical professional
- Plan treatment early in the day and week for monitoring of bleeding
- Initial treatment: limit subgingival scaling to 3 teeth so bleeding can be assessed before continuing
- If analgesia required, advise patients to take paracetamol (unless contraindicated) rather than NSAIDS
- Give patients clear post-operative instructions and emergency contact details

Warfarin

- Requires frequent monitoring by medical professionals as gets easily out of therapeutic range by diet and other medications
 - **INR:** measures time taken for a clot to be formed. INR of 1 is the equivalent to a person not taking warfarin, >1 indicates longer clotting time with longer bleeding time. Target INR depends on the indication for what patient takes it (INR range often from 2.5-4)
- Procedures likely to cause bleeding: INR should be checked 24 hrs prior to treatment. For those with stable INR, check it no more than 48 hrs prior to treatment.
- Only treat if INR is below 4. If >4, contact GMP and delay treatment

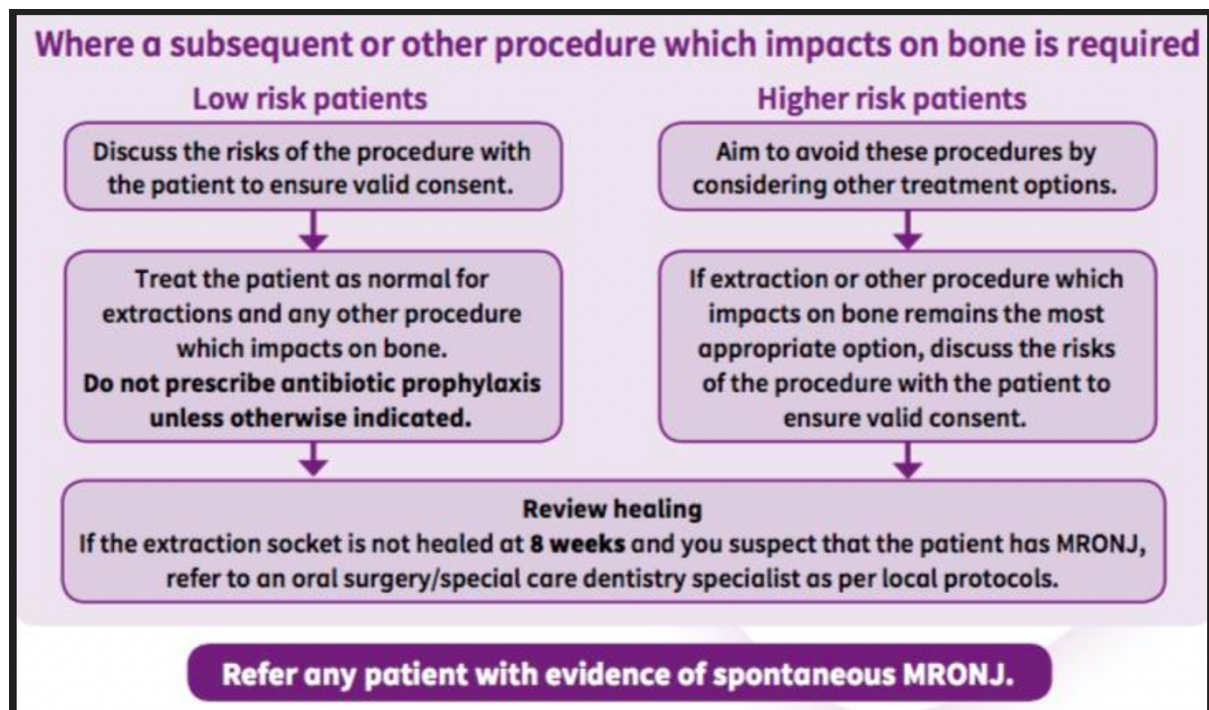
New oral anticoagulants

- Apixaban / dabigatran: taken twice a day
- Rivaroxaban: once daily
- Always consult with GP first
- Ask at what time patient takes their medication Dentist might consider the following:
- Apixaban/dabigatran: miss the morning dose and take their evening dose
 - no earlier than 4 hours after haemostasis has been achieved
- Rivaroxaban: delay morning dose up to 4 hours after haemostasis achieved.
 - If it is taken in the evening, they can take it no earlier than 4 hours after haemostasis achieved

Treatment on patients on risk of MRONJ

- **Full dental assessment** and **provide all surgical treatment required prior to start** with antiangiogenic /antiresorptive medication
- Optimise oral health (fluoride, healthy diet, stop smoking, reduce alcohol, intake).

- Early recognition of MRONJ symptoms



Gingival hyperplasia

- Patients taking the following medications may present gingival hyperplasia:
- **Calcium channel blockers (antihypertensives):** nifedipine, amlodipine, verapamil, diltiazem
Immunosuppressants: cyclosporine, tacrolimus
- **Anticonvulsants:** phenytoin, sodium valproate
- Painless interproximal gingival enlargement starting 1-3 months after initiation of therapy. If progresses and becomes severe, it becomes painful and interferes with oral hygiene and mastication.

Fluoride Varnish

- Reduction of caries in permanent dentition by 43% and 37% in deciduous dentition
- In the UK, only Duraphat® is licenced
- **Contraindicated in patients with:**
 - ulcerative gingivitis
 - stomatitis
 - allergy to colophony
 - previous history of hospital admission with allergies or asthma
 - allergy to “sticky plasters”

- Duraphat® and Profluoride® contain colophony
- Fluor Protector® is colophony-free

Dental management of patients with Parkinson

- Patients might come supported by families or carers
- Brought by ambulance transport if wheel chair
- Hoist or wheel chair recliner might be required
- Prone to falls and difficulties to sit down/stand up from dental chair
- Find out when is the best time for appointments- medication effect
- Decreased attention – you might need to repeat information
- Visual disturbances- adapt consent
- Lack of facial expression
- Dysarthria – allow plenty of time to speak
- OHI might be delivered by carers and family
- High fluoride toothpaste or varnish
- Dysphagia – avoid mouthwashes, suction, non-foaming toothpaste (SLS free)
- Tremors: use mouth props or “weighted blanket”
- Semi-supine position and slow movement of chair if blood pressure dysregulation
- Dysphagia: treat upright, hand-scaling rather than ultrasonics
- If immunosuppressants: risk of infection, bleeding and poor healing

Osteoradionecrosis of the jaw

- As a result of endarteritis caused by radiation
 - Rule out malignancy recurrence
 - Prevention is essential: thorough dental assessment, extractions of teeth with
- poor prognosis and good fitting dentures
 - Referral to OMFS if extractions required