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This supplement to the SDCEP guide on the [Management of Acute Dental Problems During COVID-19 Pandemic](#) includes information based on the SDCEP [Drug Prescribing for Dentistry](#) guidance. It lists the drug regimens that dentists are most likely to remotely advise or prescribe for their patients during the COVID-19 pandemic to support **Advice & Self Help** (see Figure 1) and provides additional details of contraindications and cautions.

Due to the COVID-19 pandemic, national policy since 23 March 2020 has been for primary care triage to focus initially on the provision of the three As:

- **Advice;**
- **Analgesia;**
- **Antimicrobials where appropriate.**

Unless urgent or emergency care is required, the patient should be encouraged to manage their symptoms at home while treatment options are restricted. Mild and moderate dental symptoms should be managed remotely by providing advice and analgesics and/or antimicrobials where appropriate.

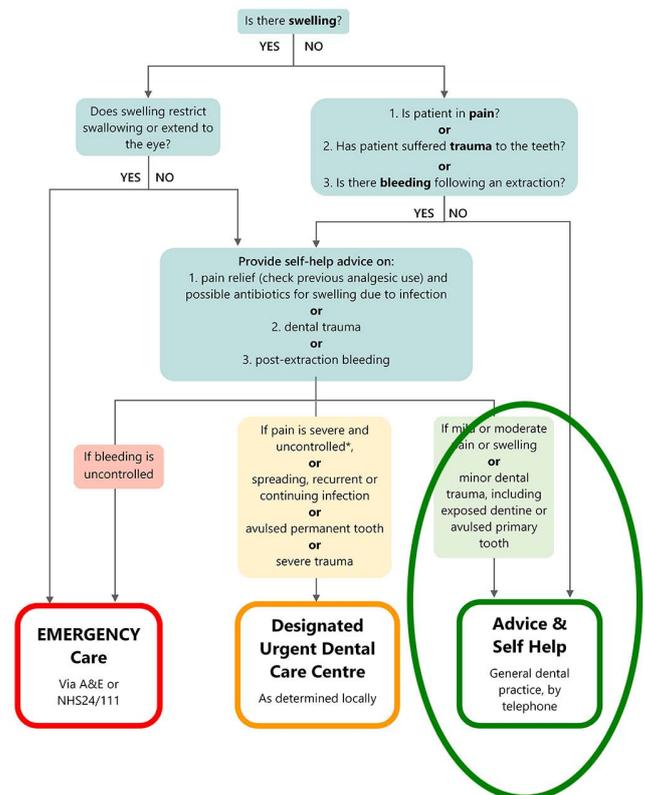


Figure 1 Triage of Commonly Presenting Acute Dental Problems

Patients with dental pain and infection may need to self-manage for longer than normal during the COVID-19 pandemic. If this applies to a patient with a relevant underlying health condition (see Appendices 1 and 2 for contraindications and cautions), liaison with their general medical practitioner or specialist is advised.

In all cases, if self-management is particularly extended or the patient's symptoms do not resolve, referral to designated providers of urgent dental care is required.

General Advice

- Where telephone triage has identified that analgesics and/or antibiotics are necessary, an up-to-date medical history should be obtained from the patient. This should include details of any medical conditions, current medications (including over-the-counter drugs, e.g. analgesics) and allergies that the patient might have.
- Due to self-isolation and shielding policies, patients might have attempted to self-manage symptoms. **It is important to establish the patient's self-management to date to check for possible overdose, particularly paracetamol.** See Appendix 1 for more details.
- Refer to the British National Formulary (BNF) (<https://bnf.nice.org.uk>) for comprehensive information on contraindications, cautions, drug interactions and side effects.
- Be aware that prescribing for some patient groups might differ. Examples include the elderly, patients who are immunocompromised or with hepatic or renal problems, patients who are pregnant and nursing mothers. Refer to the BNF (<https://bnf.nice.org.uk>) for further details.
- During the COVID-19 pandemic, it is advisable to liaise with local pharmacy colleagues to ensure that the drugs you are prescribing are available.
- Advise patients to recontact the practice if symptoms persist or worsen.
- If patients are referred for urgent dental care, ensure that details of all drugs already taken to manage the condition (prescribed and over-the-counter) are provided.
- It may be necessary to prescribe drugs that are not listed in this document. Refer to the SDCEP [Drug Prescribing for Dentistry](#) guidance or the [Dental Prescribing](#) app for more information.

Ibuprofen and COVID-19

There has been concern raised about the use of non-steroidal anti-inflammatory drugs (NSAIDs), e.g. ibuprofen, in patients with COVID-19. According to the Commission on Human Medicines' Expert Working Group on coronavirus (COVID-19), there is currently insufficient evidence to establish a link between use of ibuprofen, or other NSAIDs, and contracting or worsening of COVID-19.

Therefore, ibuprofen is currently considered appropriate for management of dental pain in patients irrespective of their COVID-19 status. The latest advice is available from the [MHRA](#).

Analgesics

Most odontogenic pain can be relieved effectively using paracetamol and/or ibuprofen. The SDCEP guide on the [Management of Acute Dental Problems During COVID-19 Pandemic](#) advises optimal analgesia¹ to manage dental pain.

It is important to first establish the patient's self-management to date to **check for possible overdose of analgesics** – see Appendix 1 for more information on contraindications and cautions for analgesics.

The following analgesic regimens can be recommended for patients **with no underlying health conditions**. There are important contraindications and cautions for patients with certain conditions, such as heart or circulatory conditions, renal or hepatic impairment or those at increased risk of gastrointestinal adverse effects. Details of these **contraindications and cautions are provided in Appendix 1**. During the COVID-19 pandemic, patients may have to take analgesics for longer than normal. In these cases, additional caution is required for patients with underlying health conditions and liaison with the patient's general medical practitioner is advised.

The analgesic drug regimens presented here can be advised for patients to control their symptoms using over-the-counter drugs or provided by prescription. In adults, where paracetamol or ibuprofen (standard or higher dose) alone are not effective, both drugs can be taken together as long as the recommended dose or frequency for either drug is not exceeded and subject to contraindications and cautions (see Appendix 1). As an alternative, ibuprofen can be replaced with diclofenac if not contraindicated. In children, taking both ibuprofen and paracetamol at the same time is not recommended.

Instruct patients to take the drugs at regular intervals that are as spaced out as possible.

The range of drugs presented here is based on those included in SDCEP *Drug Prescribing for Dentistry* guidance, which is derived from the List of Dental Preparations for NHS prescribing in the BNF's Dental Practitioner's Formulary.

Co-codamol (codeine combined with paracetamol) is another analgesic that dental patients might find useful for managing moderate to severe pain, particularly where NSAIDs are contraindicated. Co-codamol is not on the BNF's List of Dental Preparations but patients can consult a pharmacist about the suitability of low dose over-the-counter preparations.

If alternative analgesics are necessary, liaison with the patient's general medical practitioner is required.

¹ **Optimal analgesia** is defined as the lowest effective dose of painkillers taken for the shortest duration necessary to control symptoms without exceeding the maximum dose and taking into account the patient's age, weight and relevant health conditions.

Recommended analgesic doses for adults

- For mild to moderate dental pain in **adults**, an appropriate 5-day regimen is either:
 - **paracetamol**, 2 x 500 mg tablets **up to four times daily** (i.e. every 4–6 hours)
or
 - **ibuprofen**, 2 x 200 mg tablets **up to four times daily** (i.e. every 4–6 hours), preferably after food.
- For moderate to severe dental pain in **adults**, an appropriate 5-day regimen is either:
 - increase the dose of **ibuprofen** to 3 x 200 mg tablets **up to four times daily**, preferably after food
or
 - **ibuprofen** and **paracetamol** together, preferably after food, without exceeding the daily dose or frequency for either drug
or
 - **diclofenac** (1 x 50 mg tablet **three times daily**) and **paracetamol** together, preferably after food, without exceeding the recommended daily dose or frequency for either drug.

N.B. Although the standard maximum daily dose for over-the-counter ibuprofen is 1.2 g, dentists may prescribe more than this.

Maximum drug doses in 24-hour period: 4 g paracetamol; 2.4 g ibuprofen; 150 mg diclofenac.

See Appendix 1 for contraindications and cautions.

In **adult** patients at risk of GI adverse effects (see Appendix 1) who require an NSAID for the treatment of odontogenic pain, a proton pump inhibitor (PPI) can be prescribed to prevent gastric problems. Many of these patients will already be taking a PPI and will not require an additional prescription. For those patients who are not currently prescribed a PPI, liaise with their general medical practitioner before prescribing.

- For **adult** patients who require a proton pump inhibitor, an appropriate 5-day is regimen is:
 - **lansoprazole**, 1 x 15 mg capsule daily
or
 - **omeprazole**, 1 x 20 mg capsule daily.

Use lansoprazole or omeprazole with caution in patients with liver disease, in pregnancy and in patients who are breastfeeding.

Recommended analgesic doses for children

- For dental pain in **children**, an appropriate 5-day regimen is either:

- **paracetamol** (500 mg tablets, or 120 mg/5 ml[‡] or 250 mg/5 ml[‡] oral suspension*), dose depending on age (see below); **up to four times daily** (max 4 doses in 24 hours):

| Age range | Dose | Volume of oral suspension | |
|-------------|------------|---------------------------|-------------|
| | | 120 mg/5 ml | 250 mg/5 ml |
| 6-12 months | 120 mg | 5 ml | |
| 2-3 years | 180 mg | 7.5 ml | |
| 4-5 years | 240 mg | 10 ml | |
| 6-7 years | 240-250 mg | 10 ml | 5 ml |
| 8-9 years | 360-375 mg | | 7.5 ml |
| 10-11 years | 480-500 mg | | 10 ml |
| 12-15 years | 480-750 mg | | 10-15 ml |
| 16-17 years | 500 mg-1 g | | 10-20 ml |

or

- **ibuprofen** (200 mg tablets or 100 mg/5 ml oral suspension*), dose depending on age (see below), preferably after food, **up to three times daily unless indicated otherwise below:**

| Age range | Dose | Volume of oral suspension 100 mg/5 ml |
|-------------|------------------------|--|
| 6-11 months | 50 mg (4 x daily) | 2.5 ml |
| 1-3 years | 100 mg | 5 ml |
| 4-6 years | 150 mg | 7.5 ml |
| 7-9 years | 200 mg | 10 ml |
| 10-11 years | 300 mg | 15 ml |
| 12-17 years | 300-400 mg (4 x daily) | 15-20 ml |

[‡]120 mg/5 ml paracetamol suspension is suitable for children 6 months to 6 years; 250 mg/ 5 ml paracetamol suspension is suitable for children 6 years plus.

*Sugar-free preparation is available.

N.B. Taking paracetamol and ibuprofen at the same time is not recommended for children. If either paracetamol or ibuprofen alone are not effective, both can be given alternately (i.e. paracetamol taken first then ibuprofen 2 hours later, and so on, without exceeding the daily doses above) if the parent/carer is confident about managing this regimen.

Dosing of either paracetamol or ibuprofen may need to be adjusted if child weight differs significantly from average.

See Appendix 1 for contraindications and cautions.

Antibiotics

Antibiotics are not indicated in the absence of swelling or other signs of infection. However, where an antibiotic is required to manage a dental infection causing swelling and pain, amoxicillin or phenoxymethylpenicillin are equally effective. Metronidazole is a suitable alternative for patients who are allergic to penicillin. It can also be used as an adjunct to a penicillin in patients with spreading infection or pyrexia. (Note that each drug is used at the same dose as when administered alone.)

Metronidazole is the drug of first choice for pericoronitis and necrotising ulcerative gingivitis/periodontitis.

The first-line antimicrobial management of dental infections is summarised in the table below, along with the recommended duration of treatment for each condition.

Table 1 First-line antimicrobial management of dental infections

| Diagnosis | Management |
|--|---|
| Acute apical abscess, Acute periodontal abscess/ perio-endo lesions | Prescribe a 5-day course of amoxicillin, phenoxymethylpenicillin or metronidazole. |
| Acute pericoronitis, Necrotising ulcerative gingivitis/periodontitis | Prescribe a 3-day course of metronidazole or amoxicillin. |

The following antibiotics can be recommended for patients with dental infections causing swelling and pain. For severe infections (e.g. extra-oral swelling, eye closing or trismus) in adults, the dose of amoxicillin and phenoxymethylpenicillin can be doubled. See under each individual drug for advice on prescribing for severe infections in children.

Advise patients that they should take the drug at regular intervals that are as spaced out as possible.

Contraindications and cautions for each drug are listed in Appendix 2.

If a patient has not responded to one course of antibiotics, review the diagnosis and consider referral to a designated urgent dental care centre.

For advice on second-line antibiotics for dental infection, refer to the SDCEP [Drug Prescribing for Dentistry](#) guidance or the [Dental Prescribing](#) app.

Recommended first-line antibiotic doses for adults (see Table 1 for duration)

- For dental infection in **adults**, either:
 - **amoxicillin**, 1 x 500 mg capsule **3 times daily**,
 - or*
 - **phenoxymethylpenicillin**, 2 x 250 mg tablets **4 times daily**,
 - or*
 - **metronidazole**, 1 x 400 mg tablet **3 times daily**.

N.B. For severe infections (e.g. extra-oral swelling, eye closing or trismus), the dose of amoxicillin and phenoxymethylpenicillin can be doubled.

See Appendix 2 for contraindications and cautions.

Recommended first-line antibiotic doses for children (see Table 1 for duration)

- For dental infection in **children**, either:
 - **amoxicillin** (250 mg capsules, or Oral Suspension* 125 mg/5 ml or 250 mg/5 ml) dose depending on age (see below); **three times daily**,

| | | | | |
|-------------|--------|--|-------------|--------|
| 6-11 months | 125 mg | | 5-11 years | 500 mg |
| 1-4 years | 250 mg | | 12-17 years | 500 mg |

For severe infection in children aged 6 months to 11 years, increase the dose of amoxicillin up to 30 mg/kg (max 1 g) three times daily.

For severe infection in children aged 12-17 years, double the dose of amoxicillin.

or

- **phenoxymethylpenicillin** (250 mg tablets, or Oral Solution*, 125 mg/5 ml or 250 mg/5 ml) dose depending on age (see below); **four times daily**,

| | | | | |
|-------------|---------|--|-------------|--------|
| 6-11 months | 62.5 mg | | 6-11 years | 250 mg |
| 1-5 years | 125 mg | | 12-17 years | 500 mg |

For severe infection in children up to 11 years, increase the dose of phenoxymethylpenicillin up to 12.5 mg/kg four times daily.

For severe infection in children aged 12-17 years, increase the dose up to 1 g four times daily.

or

- **metronidazole** (200 mg tablets, or Oral Suspension, 200 mg/5 ml) dose depending on age (see below) **three times daily unless indicated below**

| | | | | |
|-----------|--------------------|--|-------------|--------|
| 1-2 years | 50 mg | | 7-9 years | 100 mg |
| 3-6 years | 100 mg (2 x daily) | | 10-17 years | 200 mg |

*Sugar-free preparation is available.

See Appendix 2 for contraindications and cautions.

About this supplement

This resource is based on the SDCEP [Drug Prescribing for Dentistry](#) guidance, which is derived from information in the British National Formulary (BNF) and BNF for Children (BNFC). The guidance has been adapted for the extraordinary circumstances imposed during the COVID-19 pandemic. Advice on contraindications and cautions, including additional information from other sources, is provided in the appendices.

This resource has been developed by the SDCEP guidance development team in consultation with a range of experienced and expert dental and pharmacy professionals.

Please refer to the Disclaimer included in *Drug Prescribing for Dentistry*, available at www.sdcep.org.uk.

As with all SDCEP guidance, the information presented here does not override the individual responsibility of the health professional to make decisions appropriate to the individual patient.

Appendix 1 Contraindications and cautions – analgesics

The contraindications and cautions most relevant to dental prescribing of the analgesics included in this guide are presented in this appendix. Refer to the BNF (<https://bnf.nice.org.uk/>) for comprehensive information on contraindications, cautions, drug interactions and side effects.

It is essential to first check the patient's current use of analgesics before advising or prescribing analgesics. In particular, overdose with paracetamol is dangerous because it can cause hepatic damage that is sometimes not apparent for 4–6 days and can be fatal. Paracetamol is present in many over-the-counter preparations and you should identify all paracetamol-containing medications that a patient has ingested.

A patient who ingests a therapeutic excess of paracetamol (defined as more than the recommended daily dose [8 x 500 mg tablets for adults] **and** more than or equal to 75 mg/kg in any 24-hour period) should be referred for assessment in an emergency department.

Drug regimens that may be recommended or prescribed by a dentist for an **adult** patient with dental pain are shown in the following table with the order of the drug regimens from left to right reflecting a stepwise approach to achieving optimal analgesia.² Health conditions are listed with contraindications or cautions for each drug regimen indicated as follows:

| | |
|---|--|
| ✓ | Can be prescribed/advised for these patients |
| C | Prescribe/advise with caution |
| X | Do not prescribe/advise for these patients* |

It is essential to refer to the numbered cautionary note indicated. Depending on the condition, a reduced dose, liaison with a medical practitioner or monitoring might be required.

*Either contraindicated or not recommended for prescription by dentists in this guide due to high risk of adverse effects (see relevant numbered cautionary note).

While the information in this table is primarily relevant to adult patients, some cautions for paracetamol and ibuprofen may also be relevant to children, for example those with asthma.

If uncertain about a patient's medical conditions, current medication or suitable analgesia, contact their general medical practitioner (GMP) for advice.

² **Optimal analgesia** is defined as the lowest effective dose of painkillers taken for the shortest duration necessary to control symptoms without exceeding the maximum dose and taking into account the patient's age, weight and relevant health conditions.

| Adult Analgesic Dose | Paracetamol (up to 4x1g daily) | Ibuprofen (up to 4x400mg daily) | Ibuprofen (up to 4x600mg daily) | Ibuprofen (up to 4x400mg daily) + Paracetamol (up to 4x1g daily) | Ibuprofen (up to 4x600mg daily) + Paracetamol (up to 4x1g daily) | Diclofenac (up to 3x50mg daily) + Paracetamol (up to 4x1g daily) |
|---|--|---|---|---|---|---|
| Condition | | | | | | |
| None | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Existing non-dental NSAID use (excluding low dose aspirin) | ✓ | C ¹ | C ¹ | C ¹ | C ¹ | C ¹ |
| Low dose aspirin | ✓ | C ² | C ² | C ² | C ² | X |
| Elderly patients >65 yrs | ✓ | C ³ | X ³ | C ³ | X ³ | X ³ |
| Low body weight, alcohol dependence, chronic alcoholism, chronic malnutrition, or dehydration | C ⁴ | C ⁵ | C ⁵ | C ^{4,5} | C ^{4,5} | C ^{4,5} |
| Pregnancy | ✓ | X ⁶ | X ⁶ | X ⁶ | X ⁶ | X ⁶ |
| Breastfeeding | ✓ ⁷ | C ⁷ | C ⁷ | C ⁷ | C ⁷ | X |
| Allergic | | | | | | |
| History of hypersensitivity/severe allergic reaction to an NSAID (including aspirin) e.g. asthma, rhinitis, angioedema or urticaria | ✓ | X | X | X | X | X |
| History of hypersensitivity to paracetamol | X | ✓ | ✓ | X | X | X |
| Allergic disorders (e.g. allergy to other medicines, foods, latex or pollens) | ✓ | C ⁸ | C ⁸ | C ⁸ | C ⁸ | C ⁸ |
| Respiratory | | | | | | |
| Asthma | ✓ | C ⁹ | C ⁹ | C ⁹ | C ⁹ | C ⁹ |
| Cardiac/circulatory | | | | | | |
| Severe heart failure | ✓ | X | X | X | X | X |
| Mild to moderate heart failure | ✓ | C ¹⁰ | X ¹⁰ | C ¹⁰ | X ¹⁰ | X |
| Ischaemic heart disease, cerebrovascular disease, or peripheral arterial disease | ✓ | C ¹¹ | X ¹¹ | C ¹¹ | X ¹¹ | X |
| Hypertension | ✓ | C ¹² | X ¹² | C ¹² | X ¹² | X ¹² |

| Adult Analgesic Dose | Paracetamol (up to 4x1g daily) | Ibuprofen (up to 4x400mg daily) | Ibuprofen (up to 4x600mg daily) | Ibuprofen (up to 4x400mg daily) + Paracetamol (up to 4x1g daily) | Ibuprofen (up to 4x600mg daily) + Paracetamol (up to 4x1g daily) | Diclofenac (up to 3x50mg daily) + Paracetamol (up to 4x1g daily) |
|--|--------------------------------|---------------------------------|---------------------------------|--|--|--|
| Condition | | | | | | |
| Gastrointestinal | | | | | | |
| Active gastrointestinal (GI) bleeding or GI ulcer <i>or</i> History of GI bleeding or ulcer related to previous NSAID use <i>or</i> History of two or more GI bleeds or ulcers | ✓ | X | X | X | X | X |
| History of one previous bleed or ulcer not associated with NSAID use | ✓ | C ¹³ | C ¹³ | C ¹³ | C ¹³ | C ¹³ |
| Inflammatory bowel disease | ✓ | C ¹⁴ | C ¹⁴ | C ¹⁴ | C ¹⁴ | C ¹⁴ |
| Hepatic | | | | | | |
| Severe hepatic impairment (serum albumin <25 g/l or Child-Pugh score of 10 or more) | C ¹⁵ | X | X | X | X | X |
| Hepatic impairment (mild to moderate) | C ¹⁵ | C ¹⁶ | C ¹⁶ | C ^{15,16} | C ^{15,16} | C ^{15,16} |
| Renal | | | | | | |
| Severe renal impairment (eGFR) <30 mL/minute/1.73 m ²) | C ¹⁷ | X | X | X | X | X |
| Renal impairment (mild to moderate) | ✓ | C ¹⁸ | C ¹⁸ | C ¹⁸ | C ¹⁸ | C ¹⁸ |
| Bleeding tendencies | | | | | | |
| Anticoagulant use | ✓ ¹⁹ | C ²⁰ | C ²⁰ | C ²⁰ | C ²⁰ | C ²⁰ |
| Bleeding disorders | ✓ | C ²¹ | C ²¹ | C ²¹ | C ²¹ | C ²¹ |

1. Patients already taking an NSAID (prescribed or not) regularly for a non-dental condition should not take an additional NSAID to control dental pain.
2. Prescribe ibuprofen with caution for patients taking low dose aspirin. Addition of an NSAID may reduce the cardioprotective benefit of low dose aspirin and increases the risk of GI bleeds. In patients taking low dose aspirin, if an NSAID is necessary to control the pain, consider the use of ibuprofen up to 1200 mg maximum daily with a PPI or contact the patient's GMP for advice. Diclofenac is contraindicated.

3. Elderly patients are at increased risk of cardiovascular, renal, and serious GI adverse effects (including GI bleeding and perforation, which may be fatal).
Prescribe ibuprofen with caution. Do not exceed 1200 mg ibuprofen per day. A PPI should be co-prescribed – liaise with the patient’s GMP if a PPI is not currently prescribed.
Monitoring blood pressure, renal function, and features of heart failure may be required 1–2 weeks after starting or increasing the dose of an NSAID. Liaise with the patient’s GMP to discuss.
Diclofenac is not recommended in this guide due to increased cardiovascular risk in the elderly.
4. Prescribe paracetamol with caution for people who weigh under 50kg, using clinical judgment to adjust the dose.
Prescribe paracetamol with caution if there is alcohol dependence, chronic alcoholism, chronic malnutrition or dehydration.
5. NSAIDs should be avoided in people with dehydration, due to risk of acute kidney injury.
For patients with chronic alcoholism and alcohol dependence the GI risk is increased with NSAIDs. Avoid NSAIDs if possible or prescribe with a PPI.
6. Paracetamol is the analgesic of choice during pregnancy.
As NSAIDs should be avoided in pregnant patients unless the benefits outweigh the risks, they are not recommended in this guide. If necessary, a GMP may prescribe an NSAID, using the lowest effective dose for the shortest time possible. NSAIDs must not be used from 30 weeks of pregnancy without specialist advice and regular foetal monitoring.
7. Paracetamol is the analgesic of choice for women who are breastfeeding. Seek expert advice if the infant is pre-term, or low birthweight. Absorption, distribution, metabolism, or excretion of paracetamol may be affected by an underlying medical condition.
Use NSAIDs with caution. If an NSAID is necessary, ibuprofen is preferred using the lowest effective dose for the shortest time possible.
8. Prescribe NSAIDs with caution to people with allergic disorders as they may be at increased risk of NSAID induced allergy.
Advise the patient to look out for allergic symptoms and to stop taking the NSAID if these occur.
9. Prescribe NSAIDs with caution to people with asthma. All NSAIDs have the potential to exacerbate asthma, either acutely or as a gradual worsening of symptoms.
Warn the patient of the potential for development of NSAID induced asthma, particularly late in life.
Advise the patient to look out for symptoms, follow their usual plan for worsening of symptoms and to stop taking NSAID if these occur.
10. Prescribe ibuprofen with caution to people with cardiac impairment or mild to moderate heart failure (NSAIDs may impair renal function). Do not prescribe NSAIDs in severe heart failure.
Prescribe **ibuprofen up to 1200 mg per day** as a first-line option (note that this is a lower dose than the 4 x 400 mg per day regimen recommended in the BNF for dental pain). For higher doses liaise with the patient’s GMP.
Monitoring of blood pressure, renal function, and features of heart failure may be required 1–2 weeks after starting or increasing the dose of an NSAID. Liaise with the patient’s GMP to discuss.
If in doubt about the severity of the patient’s heart failure or appropriate analgesics, consult with their GMP.
11. Prescribe ibuprofen with caution to people with cerebrovascular disease, ischaemic heart disease, peripheral arterial disease, or risk factors for cardiovascular events (for example, hypertension, hyperlipidaemia, diabetes mellitus, smoking).

Prescribe **ibuprofen up to 1200 mg per day** as a first-line option (note that this is a lower dose than the 4 x 400 mg per day regimen recommended in the BNF for dental pain). For higher doses liaise with the patient's GMP.

Monitoring of blood pressure, renal function, and features of heart failure may be required 1–2 weeks after starting or increasing the dose of an NSAID. Liaise with the patient's GMP to discuss.

12. Prescribe NSAIDs with caution to people with hypertension (NSAIDs may impair renal function). Prescribe **ibuprofen up to 1200 mg per day** as a first-line option (note that this is a lower dose than the 4 x 400 mg per day regimen recommended in the BNF for dental pain). For higher doses liaise with the patient's GMP. Monitoring of blood pressure may be required 1–4 weeks after starting long-term treatment or increasing the dose of an NSAID. Liaise with the patient's GMP to discuss. Diclofenac is not recommended in this guide for patients with hypertension due to cardiovascular risk.
13. Prescribe NSAIDs with caution to people with a history of GI ulceration or bleed or people at high risk of GI adverse effects. Risk factors for NSAID-induced gastrointestinal (GI) adverse events include:
 - Aged over 65 years
 - A high dose of an NSAID
 - A history of gastroduodenal ulcer, GI bleeding, or gastroduodenal perforation
 - Concomitant use of medications that are known to increase the likelihood of upper GI adverse events (for example, anticoagulants, corticosteroids, selective serotonin reuptake inhibitors)
 - A serious comorbidity, such as cardiovascular disease, hepatic or renal impairment (including dehydration), diabetes, or hypertension
 - Heavy smoking
 - Excessive alcohol consumption
 - Previous adverse reaction to NSAIDs
 - Prolonged requirement for NSAIDs

A PPI should be co-prescribed with an NSAID – liaise with the patient's GMP if a PPI is not currently prescribed.

If in doubt about the patient's level of GI risk or appropriate analgesics, consult with their GMP.
14. Prescribe NSAIDs with caution to people with inflammatory bowel disease (NSAIDs may increase the risk of developing or cause exacerbations of ulcerative colitis or Crohn's disease).
15. Paracetamol is considered to be a suitable analgesic option in most people with liver disease. However, the manufacturer advises caution. Dose reduction might be required for some patients, for example those with moderate or severe acute hepatitis.
16. Prescribe NSAIDs with caution to people with mild to moderate hepatic impairment (do not prescribe in severe hepatic impairment). Dose reductions and monitoring of liver function may be necessary.
17. Prescribe paracetamol with caution to people with severe renal impairment. Dose reduction might be required; liaise with the patient's GMP to discuss.
18. Prescribe NSAIDs with caution to people with mild to moderate renal impairment; avoid if possible (do not prescribe in severe renal impairment). Sodium and water retention may occur leading to a deterioration in renal function and, possibly renal failure. If the patient cannot avoid using an NSAID and has impaired renal function, monitoring of renal function is required 1–2 weeks after starting or increasing the dose of an NSAID. Liaise with the patient's GMP to discuss.

19. For people taking anticoagulants paracetamol is considered safer than aspirin or NSAIDs because it does not affect platelets or cause gastric bleeding. Patients should have their usual INR check planned and inform their clinician if they have been using paracetamol regularly.
20. Avoid concomitant use of NSAIDs with anticoagulants (e.g. warfarin, dabigatran) if possible. All NSAIDs can cause GI irritation and reduce platelet aggregation, which can worsen any bleeding event. If concurrent use is necessary be aware of the potential risks of bleeding. Consider giving gastroprotection. Liaise with the patient's GMP if a PPI is required but is not currently prescribed.
21. Prescribe NSAIDs with caution for patients with bleeding disorders (e.g. Haemophilia, von Willebrand disease and clotting factor deficiencies). Consult with the patient's GMP or haematologist.

Sources

The primary sources are:

NICE Clinical Knowledge Summaries: NSAIDs- prescribing issues
(<https://cks.nice.org.uk/nsaids-prescribing-issues>)

NICE Clinical Knowledge Summaries: Analgesia- mild to moderate pain
(<https://cks.nice.org.uk/analgesia-mild-to-moderate-pain>)

Other sources include:

Stockley's Drug Interactions
(www.medicinescomplete.com/#/interactions/stockley)

BNF Prescribing in the Elderly
(<https://bnf.nice.org.uk/guidance/prescribing-in-the-elderly.html>)

BNF Drugs – Paracetamol
(<https://bnf.nice.org.uk/drug/paracetamol.html>)

BNF Treatment summary - Non steroidal anti-inflammatory drugs
(<https://bnf.nice.org.uk/treatment-summary/non-steroidal-anti-inflammatory-drugs.html>)

Specialist Pharmacy Service – Can nonsteroidal anti-inflammatory drugs be used in adult patients with Asthma?
(www.sps.nhs.uk/articles/can-nonsteroidal-anti-inflammatory-drugs-be-used-in-adult-patients-with-asthma/)

Summary of product characteristics, ibuprofen (Brufen) 400 mg tablets
(www.medicines.org.uk/emc/product/6713/smpc)

Summary of product characteristics, diclofenac sodium 50 mg gastro-resistant tablets
(www.medicines.org.uk/emc/product/2660/smpc)

Summary of product characteristics, paracetamol 500 mg tablets
(www.medicines.org.uk/emc/product/5164/smpc)

Appendix 2 Contraindications and cautions - antibiotics

The contraindications and cautions most relevant to dental prescribing of the antibiotics included in this guide are presented in this appendix. Refer to the BNF (<https://bnf.nice.org.uk/>) for comprehensive information on contraindications, cautions, drug interactions and side effects.

Amoxicillin/phenoxymethylpenicillin

Contraindications

Do not prescribe amoxicillin or phenoxymethylpenicillin to people with a history of anaphylaxis, urticaria or rash immediately after penicillin administration as these individuals are at risk of immediate hypersensitivity, including anaphylaxis and rashes.

Cautions

Prescribe amoxicillin and phenoxymethylpenicillin with caution for:

- people with hypersensitivity to cephalosporins since there is some evidence of partial cross-allergenicity.
- people with renal impairment. Dose reduction may be required in cases of severe renal impairment.
- people taking warfarin, since amoxicillin or phenoxymethylpenicillin potentially alter the anticoagulant effect of warfarin. If either antibiotic is prescribed for patients taking warfarin, the INR should be checked 4-7 days after the antibiotic course has started.

Metronidazole

Contraindications

Do not prescribe metronidazole to:

- people with known metronidazole or nitroimidazole hypersensitivity.
- people taking warfarin.

Cautions

Metronidazole has a disulfiram-like reaction with alcohol therefore advise patients to avoid alcohol when taking metronidazole.