



Module 1871

How to use your BNF

From this pharmacy CPD module on using the *British National Formulary* you will learn:

- What changes have occurred in the *BNF* recently and why
- About the structure of the *BNF*
- How the *BNF* can be used online
- How the evidence for different recommendations is graded

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The *British National Formulary (BNF)* and *British National Formulary for Children* are resources designed to provide healthcare professionals with reliable, independent and up-to-date information about the prescribing, dispensing, administering and monitoring of medicines.

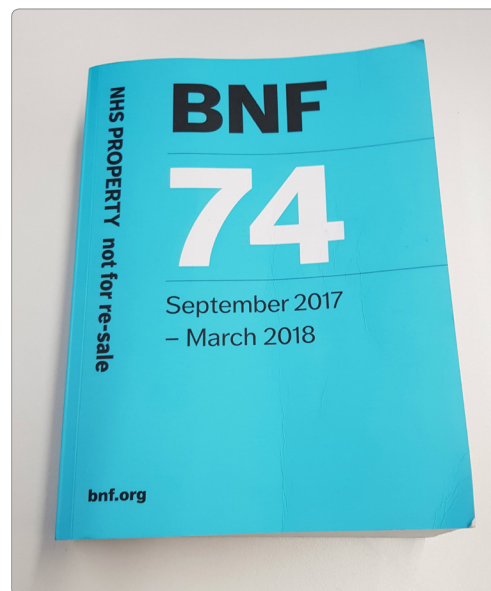
The first print edition of the *BNF* was published in 1981, and is a direct descendant of the *National War Formulary* of 1939. In recent years, the content, design and format of *BNF* publications has changed, in a bid to make it easier to use and access.

The *BNF* is published jointly by the British Medical Association (BMA) and the Royal Pharmaceutical Society (RPS), under the authority of the Joint Formulary Committee. The *BNF* print publication is published twice a year – in March and September.

The *BNF for Children* was first published as a stand-alone publication in September 2005. It is a joint publication by the BMA, the RPS, the Royal College of Paediatrics and Child Health (RCPCH) and the Neonatal and Paediatric Pharmacists Group (NPPG).

The *BNF for Children* provides healthcare professionals with information on the use of drugs in conditions in neonates, infants, children

and adolescents up to 18 years of age. The information in the *BNF for Children* was originally derived from recommendations in *Medicines for Children* (2003) and the *BNF*, and is often combined with information from other sources, such as hospital paediatric formularies, research studies, expert advice and systematic reviews. The *BNF for Children* print edition is published once a year, in September.



How has the *BNF* and *BNF for Children* structure changed?

In September 2015, both the *BNF* and *BNF for Children* underwent significant changes in format and design. In the two years since the newly formatted *BNF 70*, further optimisation has meant its contents have become less focused on a print-centric data structure.

One of the most notable changes has been the removal of section numbering. Whereas previously sections were numbered by drug class, chapters now have broad sections which are subdivided by therapeutic use, and the contents then arranged alphabetically. For example, methadone for opioid dependence was previously found in *BNF* section 4.10.3, but is now in section 8.3 'opioid dependence'.

One of the benefits of these changes is that the contents of the *BNF* can be more easily transferred to other digital platforms, such as the purpose-built *BNF* app, which launched in 2017 (see The *BNF* app, p3).

However, both publications still follow the same high-level structure of earlier print editions, such as the arrangement of contents by chapter, according to various body systems (for example, gastrointestinal system, cardiovascular system). At the front of each publication, users can find information on 'how to use the *BNF*', general guidance (for example, on 'controlled drugs and dependence'), and guidance on prescribing in various patient groups.

Another change is that the monograph for each drug has been modified from seven different sections to up to 20 – according to the *BNF*'s authors, "sections are only included when relevant information has been identified" (see Drug monographs, p2).

How to navigate *BNF* publications

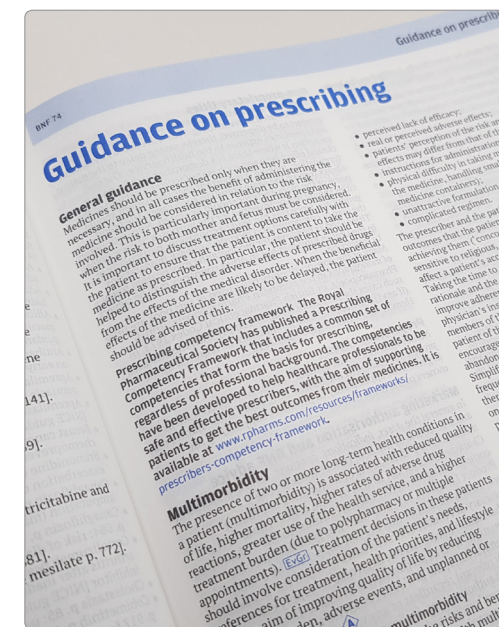
Each chapter is now divided into specific aspects of medical care, containing:

- a brief table, outlining the contents of the chapter
- treatment summaries (evidence-based

recommendations on the management of diseases)

- drug monographs (describing the indications, doses, safety issues and other prescribing considerations).

The front of *BNF* publications contain guidance on various prescribing matters, such as multimorbidity, the use of biological and biosimilar medicines, and alternative medicines.



Prescribers can also find advice and guidance on:

- emergency supply of medicines
 - controlled drugs and dependence
 - intravenous infusions
 - prescribing in certain patient groups, including those with renal impairment, receiving palliative care, the elderly, and pregnant and breastfeeding patients.
- At the back of *BNF* publications, users can find resources including:
- drug interactions advice
 - woundcare and borderline substances
 - the Dental Practitioners' Formulary

- the Nurse Prescribers' Formulary
- an index.

The Nurse Prescribers' Formulary is also available as a stand-alone publication, printed every two years. It is a supplement to the *BNF*, designed to aid nurse prescribers in the community.

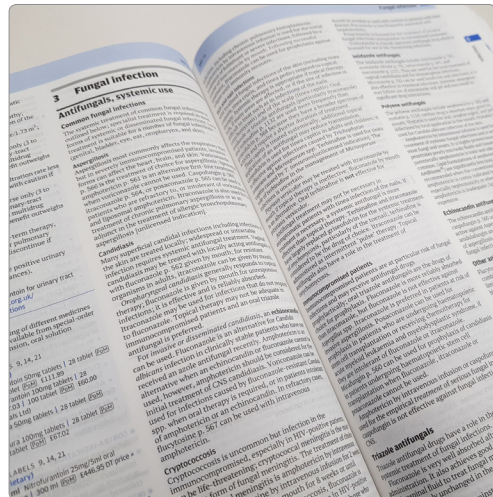
BNF publications provide advice about the unlicensed use of medicines, where the clinical need cannot be met by a licensed preparation. The unlicensed indications and doses listed are supported by appropriate evidence and experience of clinical use (such as expert advice). When *BNF* publications recommend the unlicensed or 'off-label' use of a licensed medicine, this is shown in the main drug monograph in the 'unlicensed use' section, below the 'indications and dose' section.

Additionally, whenever an unlicensed medicine is recommended in a treatment summary (see below), it is followed by "[unlicensed]".

Treatment summaries

BNF treatment summaries describe the therapeutic uses covered in that chapter. They can:

- provide an overview of how a drug is delivered



- to a particular body system
- compare drugs or groups of drugs used to treat the same conditions
- provide an overview of the drug management or prophylaxis of common conditions.

It is important that treatment summaries are used in conjunction with other prescribing details about the drugs and knowledge of both the patient's medical and drug history – helping prescribers make an informed choice when deciding on a treatment.

Drug monographs

As mentioned above, the *BNF* redesign has seen the monograph for each drug modified from seven different sections to up to 20. Depending on the drug, these additional sections can include:

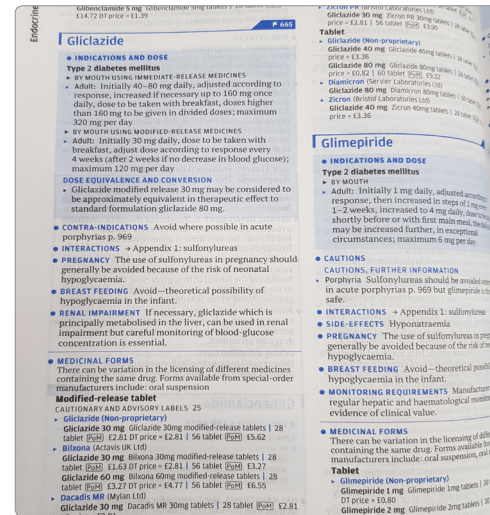
- pre-treatment screening
- effects on laboratory tests
- treatment cessation
- patient and carer advice
- handling and storage.

These new sections include valuable counselling points, information on important safety information, how to identify possible adverse effects, and actions to be taken by both the patient and the prescriber. The information in these additional sections was previously found within the 'prescribing notes'. Having this information at hand can ensure better quality counselling and may help improve adherence and patient understanding of their treatment.

Previously, certain monographs were replicated in multiple chapters (for example, adalimumab appeared in chapters on both the 'gastrointestinal system' and 'skin', for irritable bowel syndrome and psoriasis respectively). However, in the latest *BNF*, each monograph only appears once, and is signposted elsewhere. This ensures all the drug information is in one place, making content more user-friendly.

Information about the intravenous administration of drugs, which had previously been listed in an appendix at the back of the

book, has been housed under a 'directions for administration' section within each drug monograph, for ease of access.



At the bottom of each drug monograph, a 'medicinal forms' section provides categorical information about commercially available medicines, such as trade names, prices and pack sizes. These are arranged by medicinal form (eg tablet, capsule, spray).

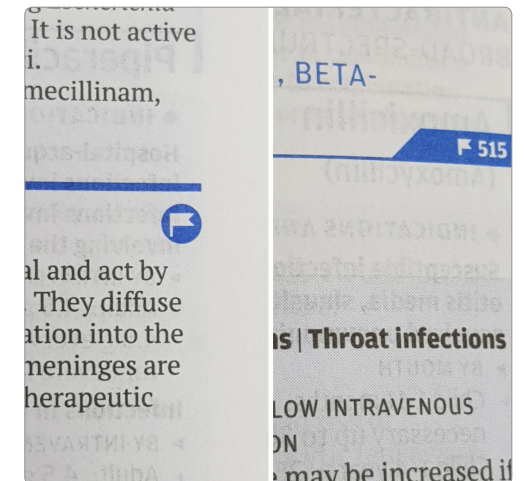
Users can find an example of layout and description of each section in a typical monograph at the front of the *BNF* and *BNF for Children* print editions, on the page titled 'typical layout of a monograph and associated medicinal forms' (p.xiv in the *BNF* 74).

In the new *BNF* format, indications and doses have been pulled to the top of the drug monograph. These sections are now highly structured, giving greater clarity around which doses should be used for which indications and by which route. If a medicine has a number of preparation or formulation doses, these are set out in the 'indications and dose' section, underneath the 'preparation' heading, ensuring greater clarity for users.

Drug class monographs

As well as drug monographs, the *BNF* 70 and beyond include drug class monographs, which cover information common to all drugs in a certain class. For example, the class monograph for penicillin includes sections on 'drug action' and 'allergy and cross-sensitivity'.

In print editions, drug classes are highlighted by a circled flag symbol beside the title of the drug class monograph. This signifies that the individual drug monographs (highlighted by a non-circled flag) that follow the class monograph corresponds to this drug class, and the information contained in the class monograph will be applicable to all these drugs.



How has the BNF and BNF for Children changed online?

The *BNF* can be accessed online for free via the National Institute for health and Care Excellence (Nice) website (at tinyurl.com/usingthebnf3), or by subscribing to the RPS's Medicines Complete website (at medicinescomplete.com).

The search function on Medicines Complete allows you to perform a free text search, for which results can be further refined using filtering tabs to specify results for drug monographs, treatment summaries, preparations and interactions. Hyperlinks can

be found throughout the digital platform, offering a quick route to additional relevant information in other sections of the *BNF*, as well as allowing users to easily toggle between the *BNF* and *BNF for Children*.

The structure of treatment summaries and drug monographs broadly follows the same format in both print and digital offerings. The search function allows users to locate treatment summaries in which particular drugs are mentioned; while in the print version the treatment summary precedes the relevant drug monographs in that chapter.

Unlike in the new print *BNF* editions, where drug information is not replicated within a single book, in the digital publications the drug class monograph information is automatically displayed in each individual drug monograph it is applicable to. Users are also able to click a short-cut link to related medicines at the bottom of the page to navigate them to other drugs within the same class.

Improved interactions information

Information on drug interactions has been reorganised in the *BNF 74* and *BNF for Children 2017-18* print editions, as well as online on Medicines Complete, on the Nice website and on the BNF app. These changes are designed to

improve accessibility and include more guidance on predicting possible drug interactions.

A clear recommendation of actions to be taken as the result of an interaction is now listed in this section; for example, where a manufacturer may recommend avoiding a combination or reducing the dose. The interactions are also described according to their severity (moderate or severe).

Levels of evidence have been added to these interactions to strengthen the recommendations – this identifies whether the interaction is anecdotal, theoretical, or based on studies. Further information on changes to the interactions content can be found at bnf.org/new-bnf-interactions.

Evidence grading in the BNF

Recommendations made in the *BNF* and *BNF for Children* are now evidence-graded to reflect the strength of the recommendation, with the aim of supporting clinical decision-making. The evidence used to make a recommendation is assessed using standardised methodology tools and graded from [A] to [E]. [A] signifies the highest grade of recommendation, as the recommendation may be based on Nice or Scottish Intercollegiate Guidelines Network (SIGN) guidelines, while [E] signifies a lower grade of recommendation, such as those based

on expert advice.

Information that does not include a clinical recommendation (eg descriptions of conditions or other clinical commentary) or recommendations where the source is specified (eg advice from the Medicines and Healthcare products Regulatory Agency) are not evidence-graded.

Further details on the grading system used and levels of evidence can be found in the *BNF* and the *BNF for Children* section titled 'how BNF publications are constructed'. The *BNF*'s authors aim to constantly revalidate all its contents over a rolling three to four-year period, and evidence-grading will be applied to recommendations as they pass through this revalidation process.

The BNF app

The BNF app has been purpose-built for both iOS and Android platforms. It is available to download for free from both the App Store and Google Play, and contains the contents of both the *BNF* and *BNF for Children*. The new app replaces the two separate *BNF* and *BNF for Children* apps, produced by Nice, and does not require an Athens login.

Watch C+D's video review of using the BNF app at tinyurl.com/BNFreview.

The app can be accessed offline and allows users to base their clinical decisions on the

latest, most up-to-date information, no matter where they are. The app also includes a robust interactions checker to identify potentially serious issues with drug combinations.

The contents of the app are updated on a monthly basis, in line with the other digital updates to *BNF* publications. Users are prompted when a new update is available for download, and devices will update automatically when connected to wifi.

The date of the most recent update can be found under the app's 'about' section. However, you should be aware that this date reflects the last time the app was updated on your device, and not the last time that *BNF* clinical content has been updated centrally.

Where else can you find BNF information?

BNF.org is a useful website, which contains information on all the *BNF* products currently available and provides answers to many frequently asked questions. This website highlights any *BNF* developments and allows users to submit feedback.

You can also sign up at tinyurl.com/usingthebnf2 to receive monthly emails outlining significant clinical updates to the *BNF*.

Antifungals, azoles (continued)

- ▶ Antifungals, azoles (**itraconazole**, **ketoconazole**, **voriconazole**) are predicted to increase the exposure to **ranolazine**. **Severe** Study → Also see TABLE 9 p. 1266
- ▶ Antifungals, azoles (**itraconazole**, **ketoconazole**, **voriconazole**) are predicted to increase the exposure to **reboxetine**. **Moderate** Study
- ▶ **Miconazole** is predicted to increase the concentration of **reboxetine**. Use with caution and adjust dose. **Moderate** Theoretical
- ▶ Antifungals, azoles (**itraconazole**, **ketoconazole**, **voriconazole**) are predicted to increase the exposure to **regorafenib**. **Moderate** Study
- ▶ Antifungals, azoles (**itraconazole**, **ketoconazole**, **voriconazole**) are predicted to increase the exposure to **repaglinide**. **Moderate** Study
- ▶ Antifungals, azoles (**fluconazole**, **itraconazole**, **ketoconazole**, **miconazole**, **voriconazole**) are predicted to increase the exposure to **regorafenib**. **Moderate** Study

preferences. <A>

EvGr Rectal foam preparations and suppositories can be used when patients have difficulty retaining liquid enemas. Diarrhoea associated with ulcerative colitis is sometimes treated with anti-diarrhoeal drugs (such as loperamide hydrochloride p. 65 or codeine phosphate p. 431) on the advice of a specialist; however their use is contra-indicated in acute ulcerative colitis as they can increase the risk of toxic megacolon.

A macrogol-containing osmotic laxative (such as macrogol 3350 with potassium chloride, sodium bicarbonate and sodium chloride p. 55) may be useful for proximal faecal loading in proctitis. <A>

Oral aminosalicylates for the treatment of ulcerative colitis are available in different preparations and release forms. **EvGr** The preparation and dosing schedule should be chosen taking into account the delivery characteristics and suitability for the patient. When used to maintain remission, single daily doses of oral aminosalicylates can be more effective than multiple daily dosing, but may result in more side-effects. <A>

Treatment of acute mild-to-moderate ulcerative colitis

EvGr Acute treatment to induce remission generally consists of an aminosalicylate with or without a corticosteroid. <A>



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BNF Sign up for the BNF/BNFC eNewsletter

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- * Details of significant updates
- * Tips for using the BNF and BNFC effectively
- * Latest developments on BNF publications
- * Links to examples of prescribing excellence and eLearning

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How to use your BNF CPD

Reflect

What other formularies can be found in the *BNF*? How has the interactions content in the latest edition of the *BNF* changed? How are recommendations in the *BNF* evidence-graded?

Plan

This article discusses the structure of the *BNF*, the latest changes that have occurred in the publication and why they were made, and the online offering the *BNF* has available. Information about how pharmacists can use the *BNF* to find the information they want is also included.

Act

- Read how the enhanced interactions section of the *BNF* has changed, by visiting tinyurl.com/usingthebnf1
- Keep up to date with the latest changes by signing up for the *BNF* and *BNF for Children* e-newsletter at tinyurl.com/usingthebnf2
- Download the BNF/BNF for Children app from Google Play or the App Store
- Take some time to familiarise yourself with the *BNF* so that you can quickly find information that you want. Access to the *BNF* can also be found on the National Institute for health and Care Excellence (Nice) website at tinyurl.com/usingthebnf3

Evaluate

Are you now confident in your knowledge of the *BNF* and its recent changes?

Take the 5-minute test online

1. The first print edition of the *BNF* in 1981 was based on several hospital formularies.
True or false
2. The *BNF* is published jointly by the British Medical Association and the Royal Pharmaceutical Society.
True or false
3. The *BNF for Children* only provides information on the use of drugs in childhood disorders in neonates, infants and children up to 12 years of age.
True or false
4. The *BNF* and the *BNF for Children* print publications are both published twice yearly in March and September.
True or false
5. The *BNF* also contains the Dental Practitioners' Formulary and the Nurse Prescribers' Formulary.
True or false
6. Unlicensed use of medicines is not included in *BNF* publications.
True or false
7. In the print version of the *BNF*, information relating to a single drug's use is located in each relevant drug monograph.
True or false
8. Drug class monographs are included in the new editions of the *BNF*.
True or false
9. The interactions section of the *BNF* now contains recommendations of actions and levels of evidence for them.
True or false
10. The clinical content of the BNF app is updated weekly.
True or false



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