



# Resources to support answering medicines-related questions in primary care

Clinical pharmacists and pharmacy technicians are taking on greater roles in primary care, particularly within general practice. They need access to reliable information about medicines. This document suggests resources for use in primary care to answer medicines-related questions.

Most of the resources listed are freely available online.

For online resources that require subscription, prices are listed for a single user; other subscriptions may be available. For online resources available via Medicines Complete, prices vary depending upon the package purchased. Very few print resources are included in this list; prices are given for both print and electronic versions where available. Prices are correct at the time of writing (February 2019). It is up to individual medicines management teams, practices or consortia to decide whether or not to purchase these resources.

UK Medicines Information (UKMi) centres have access to all these resources and more. Telephone numbers for UKMi regional centres are listed in the inside cover of the print BNF and BNFC, and online.

#### **SPS** website

Resources produced by UKMi are available on the SPS website at www.sps.nhs.uk. They include:

Medicines safety in lactation **Patient Group Directions** Medicines Q&As **Prescribing Outlook** 

New medicines information Refrigerated medicines stability

**NICE Bites** Shortages memos

Stability of medicines in compliance aids Patents information

A guide to finding information on the SPS website is available here.

# This guide has the following sections:

General resources and guidelines Drug stability / pharmaceutical issues

Administration of medicines Identification of medicines Adverse drug reactions Immunisation and vaccines

Breast feeding Mental health

Children

New medicines and horizon scanning

Complementary medicines Palliative care Contraception and family planning Patent expiry

Diagnostic tests Poisoning and toxicity

**Drug** interactions Pregnancy Drug misuse Travel medicine

Inclusion in this document is at the discretion of the author. Comments on this document and suggestions for future updates are welcomed.

We hope you find this document useful.





General resources and guidelines		
Title	Access	Content
General resources		
British National Formulary (BNF) www.medicinescomplete.com	Free access online.	Published twice yearly (March and September) in print; digital versions are updated monthly.
and www.evidence.nhs.uk	Print version, £58, supplied free of charge once yearly (September) to eligible health professionals.	Access via <a href="www.medicinescomplete.com">www.medicinescomplete.com</a> is free to individuals working for or on behalf of the NHS but users must register. There is no need to log in when accessing via the Health and Social Care (formerly N3) Network.  BNF and BNFC are also freely available via <a href="www.evidence.nhs.uk">www.evidence.nhs.uk</a> . Click on the link towards the top right corner of the homepage.
	BNF and BNFC combined app is freely available.	When each print edition is published, CPPE produces an interactive PDF document with 10 case studies to help users familiarize themselves with new content. To access it, first register with CPPE (free for healthcare professionals and students) here then log in and search for BNF.
BNF for Children (BNFC) www.medicinescomplete.com	Same as BNF above.	Published annually in print (in September); digital versions are updated monthly.
and www.evidence.nhs.uk		See BNF (above) for information about how to access.
Drug Tariff www.nhsbsa.nhs.uk/Prescription Services/4940.aspx	Free access online.  Print version supplied free of charge to community pharmacies and GP practices once a year in	The Drug Tariff is published monthly and outlines what will be paid to pharmacy contractors for NHS services, drugs and appliances.  Some users have experienced problems accessing the electronic Drug Tariff via some internet browsers. If this is a problem for you, using the PDF version will help:
		To access the PDF version, click on the 'View the [month, year] Drug Tariff (PDF)' link rather than the 'View the [month, year] Drug Tariff online' link.
	January only (was previously supplied monthly).	Once open, you can search the PDF document using ctrl-F and then typing the term you are looking for. To go to a particular chapter, open the list of chapters using the 'bookmarks' tab on the right-hand side, then click on the one you want.
	,	If you save the PDF for future use, remember to check you are using the current version.
		There are user guides to the electronic and PDF versions of the Drug Tariff – click on the links to open.
		You can ask a question, and search a database of questions and answers by clicking on the 'Contact us' box towards the top of the screen and then 'Got a question - visit our knowledge base' at the bottom right of the screen.





General resources and guidelines (continued)		
Title	Access	Content
Martindale: the complete drug reference www.medicinescomplete.com	Online access >£1,000/year for single user.	Martindale has monographs for thousands of drugs used worldwide and also provides treatment summaries for various conditions.
Print ISBN: 978 0 85711 309 2	Print version 39 <sup>th</sup> edition (2017) £570	The online version is updated more frequently than the paper copy. UKMi centres subscribe to the online version.
Medicines Q&As www.sps.nhs.uk and	Free access online	Medicines Q&As provide evidence-based answers to questions about medicines; they are produced by UKMi pharmacists.
www.evidence.nhs.uk		On the SPS website, type your search terms then select 'Q&A' from the list of filters on the right side of the screen.
		From the Evidence Search website homepage type your search terms plus "Q&A". To further narrow down your search, click on 'Sources' in the 'Filter by' list on the left-hand side of the screen and then select 'Specialist Pharmacy Service' from the list that appears.
The NHS website (previously called NHS Choices) www.nhs.uk	Free access online	This website is provided by the NHS for patients and professionals. It provides information on hundreds of conditions, advice on healthy living. There is access to specially-written patient information leaflets in the 'Medicines A-Z' section.
Summaries of Product Characteristics (SPCs)	Free access online	Summaries of Product Characteristics (SPCs) and Patient Information Leaflets (PILs) are available for most UK-licensed products via the eMC website.
Available from:  electronic Medicines Compendium (eMC) www.medicines.org.uk/emc/ and		SPCs are useful for checking the licensed indications, doses, cautions, contraindications and monitoring requirements of a medicine. They can provide helpful information on excipients, adverse effects and interactions. They give the manufacturer's position on the use of a medicine in pregnancy and breastfeeding.
MHRA www.mhra.gov.uk/spc-pil/		The eMC website has an <b>Advanced</b> Search function that can be helpful. For example:  •To find products by indication  •To find products with or without a specific excipient or ingredient  •To find a tablet with specific markings (for identification)
		To perform an advanced search: Click on 'Advanced search' to the bottom right of the search box.
		You can choose to search by word or phrase, or to search by SPC section.
		The search by SPC section function is particularly helpful, e.g. to find a product that contains a particular ingredient but does not contain a particular excipient.
		To search by SPC section, click on 'By SmPC section' then select the section of the SPC you want. Chose 'Contains' or 'Does Not Contain' and type the words you do or do not want. Click 'Add' then repeat for additional sections. To finish, click 'Add' then click 'Search'.





General resources and guidelines (continued)			
Title	Access	Content	
Guidelines			
The following websites are useful	sources of clinica	l guidelines:	
Clinical Knowledge Summaries (CKS) http://cks.nice.org.uk/	Free access online	CKS evidence-based guidelines are for healthcare professionals in primary care and are more user-friendly than NICE guidance (on which many are based). Each guideline can be navigated using headings to the left side of the screen.	
		Use the 'Have I got the right topic?' section to see which patients and age groups the guideline does and does not cover. The 'How up-to-date is this topic?' section lists any recent changes.	
		The 'Management' section is particularly useful and explains how to manage various scenarios. It is laid out as a series of questions and answers; evidence (basis for recommendation) is provided to support the recommendations.	
		Scenarios can include management of conditions in women who are pregnant or breastfeeding, children, people with allergies and other patient groups.	
National Institute for Health and Care Excellence (NICE) www.nice.org.uk	Free access online	NICE guidelines provide evidence-based recommendations for topics including preventing and managing various conditions, improving health, and providing social care for adults and children.	
		NICE Technology Appraisals consider the cost-effectiveness of health technologies, including medicines.	
NICE Bites www.sps.nhs.uk and www.evidence.nhs.uk	Free access online	These are concise summaries of NICE guidelines, written by UKMi and published monthly. Previous editions are available on the SPS website and NICE Evidence Search (see below).	
Scottish Intercollegiate Guidelines Network (SIGN) www.sign.ac.uk	Free online access	SIGN produces evidence-based clinical practice guidelines for the NHS in Scotland.	
NICE Evidence Search www.evidence.nhs.uk	Free access online	NICE Evidence Search provides links to UK and other guidelines. Search for the topic you want, then select the filter 'type of information' then 'guidelines'.	
		You can also filter by 'sources' – choose the organisation you want. This can be a helpful way to find guidelines produced by national professional bodies (e.g. British Association of Dermatologists, Faculty of Sexual and Reproductive Healthcare).	





Administration of medicines		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	Some drug monographs include a 'directions for administration' section with information on mixing medicines with food or opening capsules. This section is after the dosage information and any sections on contraindication, cautions, interactions, side effects, use in hepatic and renal impairment and drug monitoring.
Medicines Q&As www.sps.nhs.uk	Free access online	There are Medicines Q&As on the therapeutic options for patients unable to swallow solid oral dosage forms, injections that can be administered enterally, covert administration of medicines, and considerations when crushing tablets or opening capsules in a care home setting.
SPCs www.medicines.org.uk/emc/and www.mhra.gov.uk/spc-pil/	Free access online	Instructions for drug administration are in section 4.2 posology and method of administration. Some SPCs include information about opening capsules or crushing tablets for administration to children or patients with swallowing difficulties.
More specialised resources		
The NEWT (North East Wales NHS Trust) guidelines for administration of medicines to patients with enteral feeding tubes or swallowing difficulties  www.newtguidelines.com  Print ISBN: 978 0 95525 153 5	Online access from £60/year for single user.  Print 3 <sup>rd</sup> edition (2015) £35	This guidance document produced by an NHS Trust gives recommendations for administering specific medicines to patients with enteral feeding tubes and for patients with swallowing difficulties. Drug monographs are listed alphabetically. Introductory chapters cover practicalities, legalities and general guidance for administering medicines for patients unable to swallow solid oral dosage forms.  NB: Online monographs are updated more frequently than the print version.
Handbook of drug administration via enteral feeding tubes www.medicinescomplete.com  Print ISBN: 978 0 85711 162 3	Online access >£300/year for single user.  Print 3 <sup>rd</sup> edition (2015) £54 eBook £47	This reference text lists options for patients unable to take solid oral dosage forms. It provides information on the suitability of specific branded and generic medicines, for administration via enteral feeding tubes. Introductory chapters cover various aspects of drug administration via this route.  NB: Online monographs are updated more frequently than the print version.





Adverse drug reactions		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	Information on adverse effects, cautions and contraindications are included in drug monographs; adverse effects common to a class are listed first, followed by those relating to individual drugs. Important safety concerns may be highlighted in boxes within monographs.  The printed BNF has tables listing examples of drugs with
		particular pharmacodynamic effect (e.g. drugs that prolong the QT interval). The tables are not included in digital versions.
Martindale www.medicinescomplete.com	Subscription required	Drug monographs include information about adverse effects and precautions.
Medicines Q&As www.sps.nhs.uk	Free access online	Some Medicines Q&As relate to adverse effects.
SPCs <u>www.medicines.org.uk/emc/</u> and <u>www.mhra.gov.uk/spc-pil/</u>	Free access online	SPCs include undesirable effects (section 4.8), contraindications (4.3) and special warnings and precautions for use (4.4).
More specialised resources		
MHRA interactive Drug Analysis Profiles (iDAPs) https://yellowcard.mhra.gov.uk/iDAP/	Free access online	Interactive Drug Analysis Profiles (iDAPs) display data from the Yellow Card Scheme and provide information on the number of reports received for a drug.
		Each iDAP provides an overview of spontaneous suspected adverse drug reactions reported through the UK Yellow Card Scheme. Reports are of reactions suspected of being medicine-related; a causal association may not have been confirmed.
		The number of reports can be viewed according to factors such as patient age or sex, or by year of report.
		Suspected reactions are listed by system organ class. The list is expandable into smaller divisions, allowing the user to see the number of reports for specific reactions.
		Each iDAP contains essential guidance (at the bottom of the report) that explains the context of the data available.
		To find an individual iDAP, use the A-Z list to choose the drug you want. Medicines are listed alphabetically by active ingredient. iDAPs are not available for combination drugs; individual iDAPS include a column showing the number of reports for medicines containing 'multiple active constituents'.
MHRA Drug Safety Update www.gov.uk/drug-safety-update	Free access online	Published monthly, this bulletin highlights current areas of concern. Individual articles are listed; bulletins can be downloaded as a PDF (click on the link in the top right corner).
NHS Improvement - Patient Safety	Free access online	This website provides links to patient safety alerts, some of which are related to medicines.
	(	Other sources
Company medical information departments. Contact details for most companies are at <u>eMC</u> .	Free	Drug manufacturers may have unpublished data on file regarding reports of adverse reactions.





Breast feeding		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	Drug monographs include very brief information on safety of drugs in breastfeeding.
Clinical Knowledge Summaries http://cks.nice.org.uk/	Free access online	Many CKS guidelines include information on the management of conditions in women who are pregnant or breastfeeding. There is also a monograph specifically on breastfeeding problems.
Medicines Q&As www.sps.nhs.uk	Free access online	Several Medicines Q&As relate to the use of drugs in breastfeeding.
SPCs <u>www.medicines.org.uk/emc</u> and <u>www.mhra.gov.uk/spc-pil/</u>	Free access online	Section 4.6 (pregnancy and lactation) clarifies the licensed status of medicines use during lactation. This is sometimes more cautious than current evidence requires.
More specialised resources		
UK Drugs In Lactation Advisory Service (UKDILAS) www.sps.nhs.uk	Free access online	Concise monographs on individual drugs and drug classes produced by the UK Drugs in Lactation Advisory Service (UKDILAS) are available on the SPS website.
		To find the monograph for a specific drug, search for the drug name, then open the individual drug entry. Scroll down until you get to 'Lactation Safety Information'. There will be brief information sometimes with a link to a therapeutic group summary.
		Alternatively, search for a drug or class and then filter your results by choosing the 'Safety in lactation' filter in the 'Usage' section in the list on the right hand side of the screen. This will NOT bring up the individual drug entry, but will bring up a list of monographs, and relevant Medicines Q&As.
		UKDILAS has produced a guide to using the SPS website to find their information, at <a href="https://www.sps.nhs.uk/articles/ukdilas">https://www.sps.nhs.uk/articles/ukdilas</a>
LactMed http://toxnet.nlm.nih.gov/cgi- bin/sis/htmlgen?LACT	Free access online	This database is part of TOXNET, the US equivalent of TOXBASE (see the pregnancy section of this guide) and includes monographs on the safety of drugs in breastfeeding. To search for a drug monograph type the drug or brand name in the box and click on 'search'; then select the monograph you want from the list of hits. Monographs are referenced and show the date of last revision at the bottom (written as year, month, day).  NB: US brand names may differ from UK brand names.

Unless specified otherwise, information applies only to healthy, full-term infants. Additional advice must be sought if the infant is pre-term or has compromised health.

UKMi centres have access to additional resources if further information is required or the enquiry cannot be answered from the resources available.

UKDILAS provide an enquiry answering service for UK health professionals, to advise on an individual's situation as to the suitability of breastfeeding whilst taking medicines. This can include complex patients, such as mothers on multiple medicines or infants who are unwell. This services is available weekdays, 9am to 5pm, excluding bank holidays. Contact details, types of enquiries answered and a checklist of information to have before calling are available here.





Children		
Title	Access	Content
General resources		
BNF for Children	See earlier	The BNFC is the standard UK resource for information on the use of medicines for children.
Clinical Knowledge Summaries http://cks.nice.org.uk/	Free online access	See the 'Have I got the right topic?' section to see which age group the guideline applies to.
SPCs www.medicines.org.uk/emc and www.mhra.gov.uk/spc-pil/	Free access online	SPCs provide information on the age for which the medicine is licensed.
More specialised resources		
Medicines for Children www.medicinesforchildren.org.u k/	Free access online	This website provides access to useful leaflets for health professionals, parents and carers. There are leaflets on specific medicines and for general medicines advice. There are also useful leaflets giving practical advice on how to administer medicines, eye drops, ear drops and other forms, to children.  The website is maintained by the RCPCH (Royal College of Paediatric and Child Health), the NPPC (Neonatal and Paediatric Pharmacists Group) and the charity 'Wellform'.
Children's Hospital websites For example: Great Ormond Street Hospital	Free access online	Many children's hospital websites provide leaflets for parents and carers about different treatments and medicines.
Notes:	<u> </u>	I

www.sps.nhs.uk

UKMi centres have access to additional resources.





Title	Access	Content
General resources		
Medicines Q&As www.sps.nhs.uk	Free access online	Several Medicines Q&As relate to the use of herbal or complementary medicines.
Martindale www.medicinescomplete.com	Subscription required (see earlier)	Martindale includes monographs on many herbal and complementary medicines.
More specialised resources		
Memorial Sloan-Kettering Cancer Center (USA)	Free access online	This US website provides evidence-based monographs on herbal preparations that give brief information on uses (not just in cancer), mechanism of action, contraindications, adverse effects and interactions. Each monograph is divided into two sections: information for patients/caregivers and information for healthcare professionals. They are written in plain English and are referenced. The date of review is at the bottom.
		There are two ways to find monographs:
		<ul> <li>Enter a term in the search box at the top of the screen to bring up a list of results, including the relevant monograph, if there is one. Click on the title to open the monograph.</li> <li>Browse the A-Z list at the bottom of the screen to find the monograph you want.</li> </ul>
		Note that monographs may have a different name from that you expect (e.g. hypericum is only listed as St John's Wort; searching for hypericum brings up the St John's Wort monograph.
		The website also provides answers to some questions about herbal medicines. Click on 'Herbs, Botanicals & Other Products: FAQs' in the list on the left of the screen.
Natural Medicines Comprehensive Database www.naturaldatabase.com	>£300/year	Some UKMi centres subscribe to this database, which is the preferred resource for information about herbal medicines. It provides evidence-based information on indications, efficacy, safety, adverse effects, interactions and mechanism of action. Each monograph is referenced and has the dates it was last reviewed and updated.
Stockley's Herbal Medicines Interactions www.medicinescomplete.com	Online access >£400/year for single	This resource provides information on interactions of commonly used herbal medicines, dietary supplements and nutraceuticals with conventional medicines.
Print ISBN: 978 0 85711 026 8	user. Print 2nd edition (2013) £83	

Some UKMi centres have access to further resources.





Contraception and family planning		
Title	Access	Content
General resources		
Medicines Q&As www.sps.nhs.uk	Free access online	Some Medicines Q&As relate to contraceptive use.
Clinical Knowledge Summaries http://cks.nice.org.uk/	Free online access	There are a variety of guidelines for contraceptive use, including assessment, natural family planning, barrier methods and spermicides, combined hormonal methods, progestogen-only methods, intra-uterine methods, sterilization and emergency contraception.
More specialised resources		
Faculty of Sexual and Reproductive Healthcare (FSRH) www.fsrh.org/ (previously the Faculty of Family Planning and Reproductive Healthcare (FFPRHC))	Free access online	This site provides access to useful guidance documents produced by FSRH, a faculty of the Royal College of Obstetricians and Gynaecologists.  To view available documents, click on 'Standards and Guidance' in the bar towards the top of the homepage. This provides links to four types of publication:  UKMEC (UK medical eligibility criteria) for contraceptive use. These show the contraceptive options available for women according to factors such as age, smoking cessation, family and personal medical history.  Current Clinical Guidance  Clinical Statements  Clinical Standards  Click on the one you want, then select the relevant topic area.
Contraception: Your Questions Answered. Guillebaud J. Print ISBN: 978 0 70204 000 6	7 <sup>th</sup> edition (2017) £36 eBook £30	This comprehensive resource provides information on all forms of hormonal contraceptives including injectables, implants, intrauterine devices and emergency contraception. It is written as a question and answer format and has a detailed index.
The Pill and other forms of hormonal contraception: the facts. Guillebaud J. Print ISBN: 978 0 19959 576 9	7 <sup>th</sup> edition (2009) £11 eBook £11	Less comprehensive than Contraception: your questions answered (see above), it is aimed at members of the public rather than health professionals.

Diagnostic tests		
Title	Access	Content
Lab Tests Online UK www.labtestsonline.org.uk	Free access online	This website is aimed at patients and provides useful information about specific laboratory tests. For each test it describes the sample used, why it is tested and what abnormal results can indicate. It is produced by the Association for Clinical Biochemistry and Laboratory Medicine.





Drug interactions		
Title	Access	Content
General resources		
British National Formulary and	See earlier	Via www.medicinescomplete.com:
BNFC		Open the relevant drug monograph then click on 'Interactions' in the list on the left side of the screen. Click on the drug name hyperlink to bring up a list of interacting drugs, in alphabetical order. Many interactions are given a grading for severity (severe, moderate, mild, unknown) and the type of evidence for them (study, anecdotal, theoretical). For some interactions, an 'action message' is given; information for these comes mainly from SPCs and the MHRA.
		Via <u>www.evidence.nhs.uk:</u>
		Open the relevant drug monograph then go to the interactions section and click on the hyperlink. Interacting drugs are listed in alphabetical order. Many interactions are graded for severity (severe, moderate, mild, unknown) and the type of evidence for them (study, anecdotal, theoretical). For some interactions, an 'action message' is given; information for these comes mainly from SPCs and the MHRA. Interactions graded 'severe' are shaded in red.
Medicines Q&As www.sps.nhs.uk	Free access online	Several Medicines Q&As relate to drug interactions.
SPCs www.medicines.org.uk/emc and www.mhra.gov.uk/spc-pil/	Free access online	The following sections can be useful for information on interactions: 4.3 (contraindications), 4.4 (special warnings and precautions for use) and 4.5 (interactions).
More specialised resources		
HIV drug interactions checker http://www.hiv-druginteractions.org	Free access online	Maintained by the University of Liverpool, this website provides useful information on interactions with HIV medicines. There is an interactive checker and printable charts, including 'treatment selectors': tables showing the therapeutic options (e.g. for analgesia, antidepressants, contraceptives) and their potential for interactions with different HIV medicines.
QT interval interactions www.crediblemeds.org	Free access online (registration required)	This US site provides a database of medicines that prolong the QT interval and/or induce Torsades de Pointes; drugs are categorised according to risk.
Stockley's Drug Interactions and Stockley's Interactions Checker www.medicinescomplete.com	Online access >£1,000/year for single user.	A standard reference text for drug interactions, the online version is updated more frequently than the paper copy. UKMi centres subscribe to the online version.
Print ISBN: 978 0 85711 270 5	Print 11 <sup>th</sup> edition (2016) £210	Stockley's Interactions Checker provides concise monographs. It is included in online subscriptions for Stockley's Drug Interactions; the two should be used in conjunction.
Stockley's Drug Interactions Pocket Companion Print ISBN: 978 0 85711 265 1	Pocket companion (2016) £30	This book provides concise summaries of information from Stockley's Drug Interactions.
	eBook £30	





Drug misuse		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	The chapter 'Controlled drugs and drug dependence' provides information on legislation relating to the prescribing of drugs associated with dependence or abuse, and prescribing for substance dependence.
Clinical Knowledge Summaries http://cks.nice.org.uk/	Free access online	There are guidelines on topics including benzodiazepine and z-drug withdrawal, opioid dependence and problem drinking.
Martindale www.medicinescomplete.com	Subscription required (see earlier)	Drug monographs state if a drug is restricted for use in sport. It uses the WADA (World Anti-Doping Agency) list of drugs.
Medicines Q&As www.sps.nhs.uk	Free access online	There is a Medicines Q&A on the equivalent doses of benzodiazepines.
NICE www.nice.org.uk	Free access online	There are a variety of relevant NICE documents available at <a href="https://www.nice.org.uk/guidance/health-protection/drug-misuse">https://www.nice.org.uk/guidance/health-protection/drug-misuse</a>
More specialised resources		
Drug misuse and dependence:  UK guidelines on clinical management (The Orange Book) 2017	Free access online	The 'orange book' is UK clinical guidance on the management of drug abuse published by the Department of Health. It was last updated in 2017.  NB: Do not confuse with the MHRA 'orange guide' on good practice
		in pharmaceutical manufacturing and distribution.
The Maudsley Prescribing guidelines in psychiatry. Taylor D.  http://maudsley-prescribing-guidelines.co.uk/ Print ISBN: 978 1 119 44260 8	13 <sup>th</sup> edition (2018) £57 eBook £50 Mobile App £50	This reference text includes a chapter on substance misuse.
Talk to Frank www.talktofrank.com	Free access online	This independent, UK Government-funded website provides reliable information for young people and their parents or carers about all aspects of substance misuse.
Driver and Vehicle Licensing Agency (DVLA) Drugs and driving: the law www.gov.uk/drug-driving-law	Free access online	This section of the UK Government website provides information on the law regarding driving and illicit drugs and prescription medicines.  A guide for medical professionals on assessing fitness to drive is available <a href="here">here</a> . It includes chapters on neurological disorders, cardiovascular disorders, diabetes mellitus, psychiatric disorders, drug or alcohol misuse or dependence, visual disorders, renal and respiratory disorders and miscellaneous conditions.
Drugs in sport		
UK Anti-Doping (UKAD) www.ukad.org.uk	Free access online	The 'Medications and substances' section (click on the tab towards the top of the screen) provides links to the current Prohibited List and information about TUEs (Therapeutic Use Exemptions).
WADA (World Anti-Doping Agency) <u>www.wada-ama.org</u>	Free access online	This site contains the current Prohibited List, published annually in October; the list comes into force on 1 <sup>st</sup> January the following year. Other useful articles are available in the 'Resources' section. Select a topic to bring up a list of documents.





Drug stability / pharmaceutical issues		
Title	Access	Content
General resources		
Medicines Q&As www.sps.nhs.uk	Free access online	Medicines Q&As are available on lactose, arachis oil and other excipients used in medicines.
SPCs www.medicines.org.uk/emc and www.mhra.gov.uk/spc-pil/	Free access online	Section 6 of SPCs includes a list of excipients, incompatibilities, shelf-life, special precautions for storage, 'nature and contents of container', and 'special precautions for disposal and other handling'.
More specialised resources		
Refrigerated medicines stability (SPS)	Free access online	Information on the stability of medicines outside recommended storage conditions is available on the SPS website.
www.sps.nhs.uk		This replaces the UKMi 'Fridge database'.
		To find data for a specific drug, search for the drug name, then open the individual drug entry. Scroll down until you get to 'Refrigerated Storage'.
		Information on stability is provided by drug companies. Each entry lists the brand name, formulation(s), manufacturer and stability data. Entries notes whether the expiry date should be altered and if the product should be returned to the fridge or not. Information is not available for all products. The date the entry was reviewed is listed.
Medicines in compliance aid stability (SPS) www.sps.nhs.uk	Free access online	Information on the stability of medicines transferred from their original packaging into multi-compartment compliance aids (MCA) is available on the SPS website.
		This replaces the UKMi 'MCA stability database'.
		To find information for a specific drug, search for the drug name, then open the individual drug entry. Scroll down until you get to 'Medicines Compliance Aid Stability'.
		Each entry lists the brand name, formulation(s) and a recommendation of suitability for use in compliance aids. Relevant theoretical considerations may be noted. Entries show the date they were reviewed.
Netco		Before using this information, users are advised to read a <u>covering</u> <u>document</u> .

For information on crushing/splitting tablets or opening capsules see the medicines administration section of this guide.





Identification of medicines		
Title	Access	Content
General resources		
SPCs www.medicines.org.uk/emc and	Free access online	SPCs contain description of tablets in section 3, pharmaceutical form.
www.mhra.gov.uk/spc-pil/		To look for a tablet or capsule with specific markings, use the 'advanced search' function (see earlier).
Martindale www.medicinescomplete.com	Subscription required (see earlier)	Many foreign generic and brand names are included in drug monographs.
More specialised resources		
TICTAC www.tictac.org.uk/	Via UKMi regional centres	UKMi regional centres have access to the TICTAC drug identification system. This searchable database contains pictures and descriptions of thousands of legal and illicit solid-dose drugs.
		Please provide as much information about the tablet or capsule you are trying to identify (e.g. markings, scoring, accurate size, shape and colour) as possible.
WebMD Pill Identification Tool www.webmd.com/pill-identification	Free access online	This US database allows users to enter markings, colour and shape to identify tablets and capsules. Please note that these may not be the same as in the UK.
list of foreign websites f	Free access for RPS members	The Royal Pharmaceutical Society has a list of websites that may be helpful in identifying medicines from specific countries. To find the list, search the website for 'foreign'.
	only	Websites are listed in alphabetical order by country; please note that some of the websites do not provide information in English.
Notes		

Take into account all the available information when trying to identify products. For example, likely indication and patient's other medicines. It is not always possible to identify a tablet or capsule from its markings.





Immunisation and vaccines (see also Travel)		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	Note that printed versions might be out of date. Always check the current immunisation schedule using an online source.
The NHS website www.nhs.uk/Conditions/vaccinat ions/	Free access online	Information for patients and carers, including the current vaccination schedule, is available via this page of the NHS website.
SPCs www.medicines.org.uk/emc and www.mhra.gov.uk/spc-pil/	Free access online	SPCs for vaccines are the same as for other prescription medicines.
More specialised resources		
Public Health England: Immunisation www.gov.uk/government/collections/immunisation	Free access online	This section of the gov.uk website provides information for healthcare professionals, including the current routine vaccination schedule and links to the 'Green Book' and 'Vaccine Update' (see below).
		There is a link to immunisation Patient Group Directions (PGD) templates to support national immunisation programmes.
		There are also links to leaflets and guides for parents.
Immunisation against infectious disease (the <i>Green Book</i> ) www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book	Free access online (NB: Print versions are out of date)	Produced by Public Health England (previously by the Department of Health) this online book provides comprehensive advice on vaccines and vaccination. Individual chapters are updated as required. Click on the chapter you want to view.  NB: Make sure to look at the current version; the website also
		allows access to the 2006 edition of the book which is out of date.
Vaccine Update www.gov.uk/government/collecti ons/vaccine-update	Free access online	Vaccine Update is a monthly newsletter produced by Public Health England. Current and archive editions are available online.
Patient Group Directions www.sps.nhs.uk	Free access online	PGDs for vaccine administration are available via the SPS website. Search for the vaccine you want then click on the 'Patient Group Directions' tab in the 'Services Section' list on the right side of the screen.





Mental health		
Title	Access	Content
General resources		
Clinical Knowledge Summaries http://cks.nice.org.uk/	Free access online	Guidelines include attention deficit hyperactivity disorder, eating disorders, psychosis and schizophrenia, self-harm and sleep disorders - shift work and jet lag. There are guidelines on depression in adults, in children, and antenatal/postnatal depression.
Medicines Q&As www.sps.nhs.uk	Free access online	There are Medicines Q&As on how to switch from one antidepressant to another, the choice of antidepressant for patients with conditions such as epilepsy or renal impairment, interactions between antidepressants and other agents, and serotonin syndrome.
More specialised resources		
Psychotropic Drug Directory. Bazire S. Print ISBN: 978 0 95691 564 1	2018 edition (2018) £50	These useful books are commonly used together to answer questions about medicines in psychiatry or to find information on the drug management of psychiatric conditions.
The Maudsley Prescribing guidelines in psychiatry. Taylor D.  http://maudsley-prescribing-guidelines.co.uk/ Print ISBN: 978 1 119 44260 8	13 <sup>th</sup> edition (2018) £57 eBook £50 Mobile App £50	





# New medicines and horizon scanning

Title Access Content

The UKMi Horizon Scanning Service produces information to support managed entry of new drugs into the NHS.

Resources are for NHS staff with budget setting, prescribing planning and medicines management responsibilities.

Further information about the service is available <u>here</u> and includes a handy guide to horizon scanning terminology, a presentation on the development process for medicines and a Q&A document on finding information about newly launched medicines.

The following resources are produced by the UKMi Horizon Scanning Service and published on the SPS website. Free registration is required for access to some information that is commercially sensitive; users must be logged in to the SPS website to see it.

UKMi New Medicines monographs www.sps.nhs.uk and	Free access online (registration required for full access)	Monographs are available for drugs in development and for up to two years post launch. Information provided includes indication, pharmacology and development status and a summary of trial data. Some information is only visible when you are logged in.
www.evidence.nhs.uk		Monographs also include links to independent medicines evaluations and regulatory documents.
		To view the monographs:
		Via SPS: Search for a drug name, click on the hyperlink and then scroll down to 'New medicines'.
		Via NICE Evidence Search: Search for the drug name or indication, then use the following limits in the list on the left of the screen:  Source: Specialist Pharmacy Service  Type of information: Secondary Evidence > Horizon Scanning
New Medicines Newsletter www.sps.nhs.uk	Free access online	Published monthly, this newsletter highlights recent significant medicines regulatory changes, new medicines monographs added to the SPS website, and a Focus section of medicines in development for a specific disease.  To find it, type 'New Medicines Newsletter' in the search box.
Prescribing Outlook series www.sps.nhs.uk		This horizon scanning resource comprises three parts and is published annually each autumn:
		Prescribing Outlook: New Medicines and National Developments (previously published as two separate documents) provides information on drugs expected to the launched in the following 12-18 months and information on national guidance and targets expected to have budgetary impact.
		Prescribing Outlook: Cost Calculator is an excel spread sheet that uses data from the other Prescribing Outlook publications to allow crude calculations of potential costs of prescribing changes for a local population.
New Product Evaluations - a resource for medicines management www.sps.nhs.uk	Free access online	This document, published monthly, provides a list of new product evaluations that are freely available to NHS staff via the internet. It includes independent evaluations published in the last three years, or that are due to be published in the near future.
		To find it, type 'new product evaluations' in the search box.
Notes:	1	

#### Notes:

If you can't find information you need in the resources listed above or need more detailed or tailored support, e.g. in the format of spreadsheets, you can email the UKMi Horizon Scanning Service at <a href="mailto:nwmedinfo@nhs.net">nwmedinfo@nhs.net</a> on a case by case basis.





Palliative care		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	The section 'Prescribing in palliative care' (in the 'Guidance on prescribing' section) includes information about pain and symptom management, medicines administration via syringe drivers and conversion from morphine to diamorphine.
Clinical Knowledge Summaries http://cks.nice.org.uk/	Free access online	There are separate guidelines for different aspects of palliative care including pain, constipation, cough, dyspnoea, general issues, malignant skin ulcer, nausea and vomiting and secretions.
Medicines Q&As www.sps.nhs.uk	Free access online	Relevant Medicines Q&As include switching to oral morphine from other opiates in palliative care and the management of hypersalivation.
More specialised resources		
Palliative Care Matters website www.pallcare.info	Free access online	This website is for healthcare professionals working in palliative care. It provides access to PANG (Palliative care Adult Network Guidelines) Clinical Guidelines and Paediatric Palliative Care Guidelines.  Click on the link to open the relevant guidelines (desktop version) then navigate using the chapter headings on the left side of the screen.  To access the syringe driver compatibility database, first click on the link for PANG Clinical Guidelines, then click on 'SD drug compatibility' in the chapter list on the left side of the screen.
Palliative Care Formulary (PCF) www.medicinescomplete.com  Print ISBN: 978 0 85711 348 1	Online access >£600/year for single user.  Print version 6 <sup>th</sup> edition (2018) £55	The PCF is a comprehensive resource for medicines in palliative care. The book is divided into drug monographs and general topics. (Note the PCF used to be online at <a href="https://www.palliativedrugs.com">www.palliativedrugs.com</a> but is now available via Medicines Complete.)
Palliative Drugs www.palliativedrugs.com	Free access to content other than PCF (see above)	The companion website to the PCF, this website provides access to content other than the PCF itself. Free registration is required. A searchable database of observational data of drug compatibility (Syringe Driver Survey Database) is available (click on the tab marked SDSD). Other free content includes a document library and bulletin board.

For questions relating to the management of specific patients, it can be helpful to contact the community palliative care team, Macmillan nurse or Marie Curie nurse caring for the patient; these specialists often work closely with district nurses.





Patent expiry		
Title	Access	Content
Patents information (SPS) www.sps.nhs.uk	Free access online (registration required)	Search using the generic name of the drug or vaccine you want, then click on the 'patent expiries' tab on the right side of the screen, OR Search using the generic name of the drug or vaccine you want, open the medicines page for that drug (by clicking on the blue drug name, or choosing a prompt in the search box), then scroll to the bottom of the page to the 'Patent Expiry Information' section.  NB: Patent expiry information is only visible to registered users who have logged in.
Prescribing Outlook – New Medicines www.sps.nhs.uk	Free access online (registration required)	Prescribing Outlook-New Medicines (see the 'New medicines and horizon scanning' section of this guide) includes a list of medicines whose patents will expire in the next three years.  NB: Prescribing Outlook is only available to registered users who have logged in.

Poisoning and toxicity		
Title	Access	Content
General resources		
British National Formulary and BNFC	See earlier	Drug monographs provide information on usual maximum doses that can be helpful.
SPCs www.medicines.org.uk/emc and www.mhra.gov.uk/spc-pil/	Free access online	SPC section 4.9 (overdose) may provide information on the symptoms and management of toxicity. Section 5 (pharmacological properties) can also be helpful, for example to find a drug's half-life.
Martindale www.medicinescomplete.com	Subscription required (see earlier)	Drug monographs may include information on higher-than-licensed doses (under uses and administration) and on overdosage (under adverse effects). Monographs also include information on pharmacokinetics.
More specialised resources		
TOXBASE www.toxbase.org	Free access online (registration required)	This website provides information from the UK National Poisons Information Service (NPIS) on the symptoms and management of poisoning by medicines, plants, household chemicals and other substances.
	A mobile app is also freely available to NHS staff.	Registration (free of charge to NHS and NHS-affiliated departments, units and practices) is required. One person is required to register on behalf of each department, unit or GP practice
Notes:		

In cases of symptomatic toxicity, contact the National Poisons Information Service for advice on 0344 892 0111. This telephone number is available 24 hours a day and is for health care professionals only.





Pregnancy		
Title	Access	Content
General resources		
British National Formulary and BNFC	See above	Drug monographs include brief information on safety of drugs in pregnancy.
Clinical Knowledge Summaries <a href="http://cks.nice.org.uk/">http://cks.nice.org.uk/</a>	Free access online	Many guidelines include information on the management of that condition during pregnancy. There are specific guidelines on itch, dyspepsia and nausea and vomiting in pregnancy, as well as antenatal and postnatal depression. There is also a guideline for routine antenatal care.
SPCs www.medicines.org.uk/emc and www.mhra.gov.uk/spc-pil/	Free access online	Most SPCs include the manufacturer's position of the use of that product in pregnant women. Some SPCs are overly cautious; check other sources for information but bear in mind the manufacturer's recommendation.
Medicines Q&As www.sps.nhs.uk	Free access online	Several Medicines Q&As relate to the use of drugs in pregnancy.
More specialised resources		
TOXBASE www.toxbase.org	Free access online (registration required)	Detailed monographs for health care professionals, produced by the UK Teratology Information Service (UKTIS), are available on this site. There are monographs on the safety of medicines and other agents, and on the management of various conditions during pregnancy.
		NB: UKTIS also provide summary monographs for healthcare professionals (see UKTIS below) and monographs for patients (see BUMPS below).
		Free registration is required. From the homepage, click on the ≡ icon at the top left of the screen then choose 'Exposure in pregnancy' to bring up an alphabetical list of monographs. Monographs on drugs and chemicals are listed first; monographs on management of conditions are later. The site also includes some monographs on drugs in breastfeeding, and a link to the UKMi Drugs in Lactation website.
UKTIS www.uktis.org	Free access online	Summary monographs for healthcare professionals are available on this site (see TOXBASE above for detailed monographs). To find them, click on the 'Resources' section then 'Information for healthcare professionals' and choose 'maternal exposure', 'paternal exposure' or 'UKTIS summaries'. 'UKTIS summaries' provides important information on background rate of birth defects and miscarriage.
BUMPS (Best Use of Medicines in Pregnancy) www.medicinesinpregnancy.org	Free access online	This site provides information from UKTIS for pregnant women and their partners. Monographs cover a variety of medicines, drug classes, recreational drugs and products such as face cream and hair dye. There are fewer monographs than on TOXBASE.
		The site also has an 'online reporting' facility for women to record their drug exposure during a current or previous pregnancy in order to help UKTIS understand how medicines, lifestyles or illnesses may affect foetal development.

UKMi centres have access to further, more specialised resources.

Health professionals may also contact UKTIS directly if necessary on 0344 892 0909. A routine enquiry-answering service is available between 9am and 5pm on weekdays; urgent queries can be answered at all times.





Travel medicine (see also Title	Access	Content
	ACCE35	Content
General resources	T	
British National Formulary and BNFC	See earlier	The BNF and BNFC include recommendations for malaria prophylaxis for travellers.
Medicines Q&As www.sps.nhs.uk	Free access online	Relevant Medicines Q&As include 'What advice should be given to patients with porphyria who intend to travel?' and 'What is the evidence for the use of low molecular weight heparins for the prophylaxis of travel-related thrombosis?'.
More specialised resources		
Fit for Travel www.fitfortravel.nhs.uk	Free access online	Produced by Health Protection Scotland, this is the sister-site to Travax (see below) and is freely available to members of the public and healthcare professionals. From the homepage, click on 'A to Z Index' to bring up a list of countries and topics.
		Information for each country includes vaccine requirements and a colour-coded 'malaria map' showing which regions are considered high, medium and low risk for malaria.
The NHS website (previously NHS Choices): Healthcare abroad - Advice for patients <a href="http://www.nhs.uk/nhsengland/Healthcareabroad/pages/Healthcareabroad.aspx">http://www.nhs.uk/nhsengland/Healthcareabroad/pages/Healthcareabroad.aspx</a>	Free access online	This site provides information for travellers, people emigrating and those travelling in order to obtain healthcare abroad. Information is provided on travel to specific countries who have reciprocal arrangements with the UK. This includes how to access immediate and urgent healthcare while abroad, what is free and what would need to be paid for, and the documents travellers need to take with them. For some countries there is information on travelling with medicines.
		There is a link to the official EHIC (European Health Insurance Card) site.
Travax www.travax.nhs.uk	£100/year for GP practice or pharmacy access; contact Travax for other access.	This site is produced for healthcare professionals by Health Protection Scotland. It provides up-to-date advice on vaccines, antimalarials and other aspects of travel medicine. Much of the information on Travax is freely available on Fit for Travel (see above).
Travel Health Pro www.travelhealthpro.org.uk	Free access online	Launched in 2015 by NaTHNaC (National Travel Health Network and Centre), this website contains all NaTHNaC's travel health resources for healthcare professionals and travellers themselves.
		To navigate the site, use the tool bar at the top, or use the search facility.

### For more complex enquiries:

A NaTHNaC helpline is available for healthcare professionals answering questions regarding travel scenarios involving complex itineraries or travellers with special health needs. Please check other sources, including the Travel Health Pro website before contacting NaTHNaC and have all relevant background information available. A checklist of information to have available before calling is <a href="here">here</a> (click on 'Information for health professionals calling the advice line').

The helpline is available on 0845 602 6712 at the following times:

Mornings: Monday to Friday 09:00 to 11:00

Afternoons: Mondays and Fridays 13:00-14:00; Tuesdays, Wednesdays and Thursdays: 13:00-15:30.