

Improving your skills as a NMP in Paediatrics & Child health

Dr Jai Ganapathi

MBBS 1998 , MD Paediatrics MRCPCH

Paediatric Consultant

Hillingdon Hospital

Paediatric prescribing principles

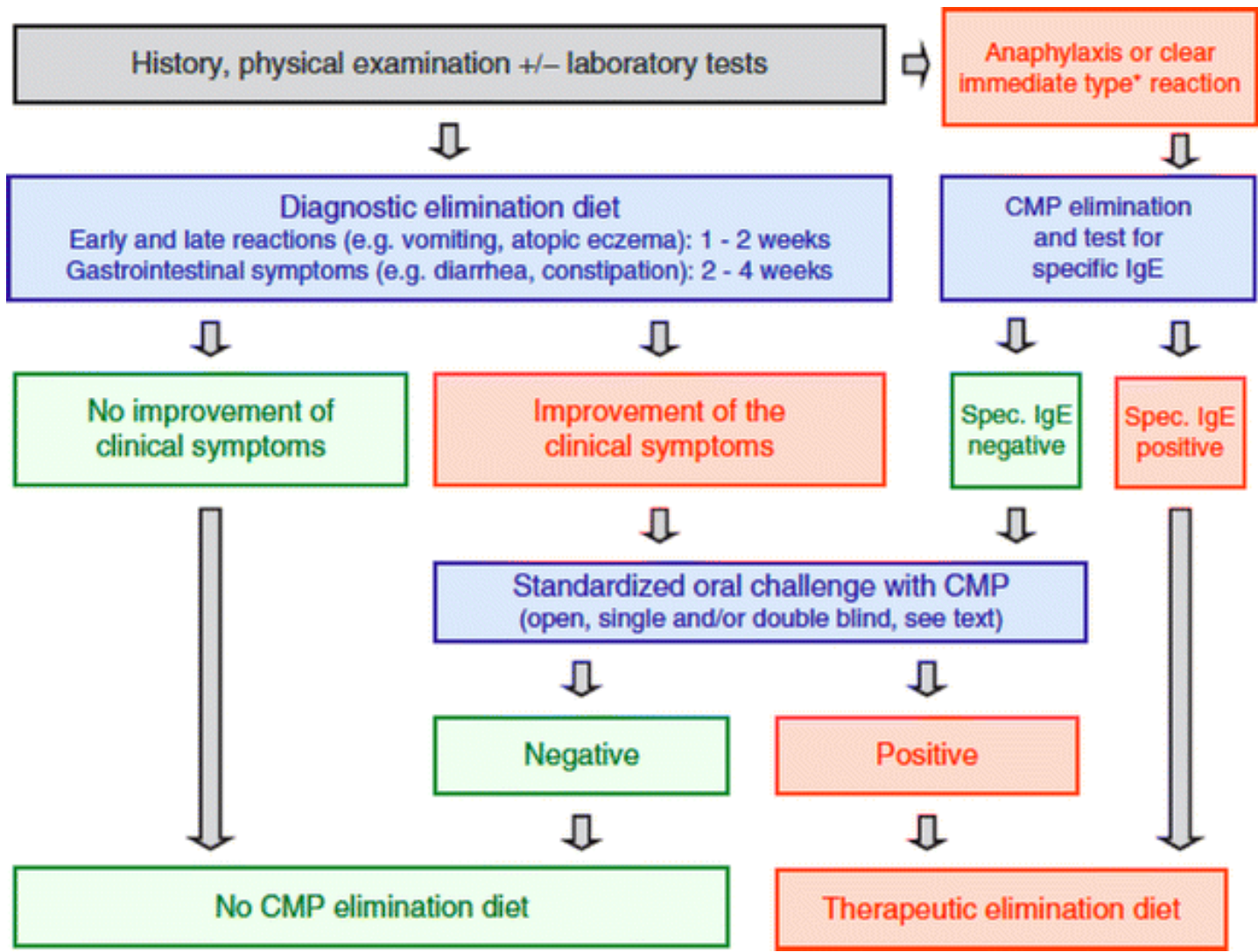
1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

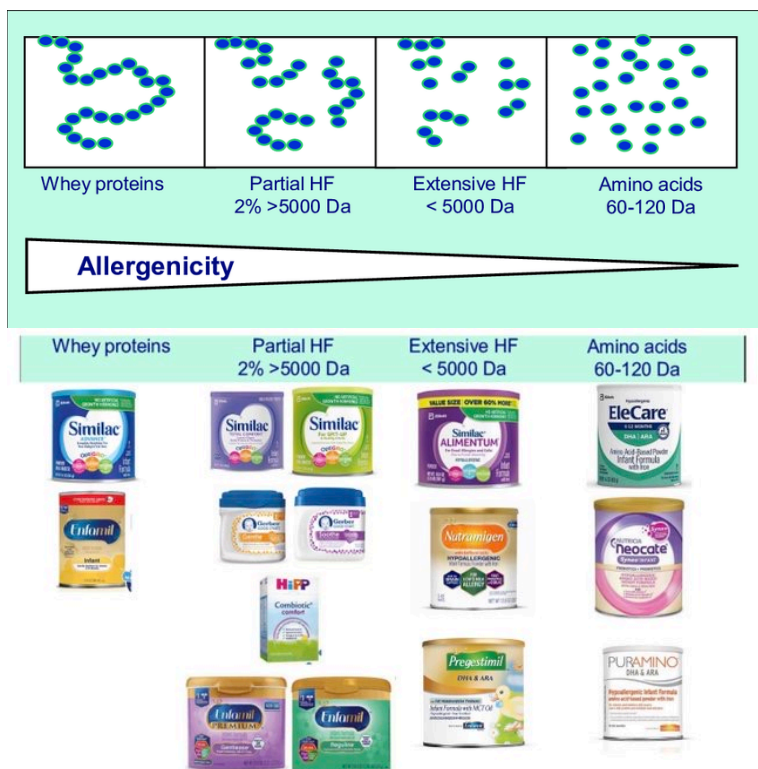
Case 1 :

- 2 month old infant
- 3 weeks non projectile frequent milky vomits bottle fed
- Back arching excessive crying , excema
- Which treatment option from below?
 - A. Gaviscon
 - B. Ranitidine
 - C. Omeprazole
 - D. Aminoacid formula/ Hydrolysed milk
- Diagnosis:
Cows Milk Protein Allergy

Paediatric Prescribing

1. **What is the diagnosis ? (Beware of treating symptoms without a diagnosis).**
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.





https://frimley-healthiertogether.nhs.uk/application/files/5216/2383/0550/CMPI_April_21.pdf

Feed type	Formulary status	Formula <i>To check suitability for different dietary restrictions, see appendix 1</i>	Age range *	Key Points
Extensively Hydrolysed formula (EHF)	Green 1 st choice	Aptamil Pepti® 1	0-6 months	EHF: Indicated if: <ul style="list-style-type: none"> Mild to moderate IgE-mediated CMPA Mild-moderate non-IgE-mediated CMPA Mild to moderate DELAYED non-IgE-mediated CMPA symptoms <ul style="list-style-type: none"> Confirm diagnosis with home milk challenge 2-4 weeks after starting EHF Maintain CMPA elimination diet until 9-12 months old, or for 6 months after diagnosis Refer to Community Paediatric Dietitian IMMEDIATE IgE-mediated CMPA symptoms <ul style="list-style-type: none"> Refer to Allergy Clinic
		Aptamil Pepti® 2	6-12 months	
		Althera®	0-12 months	
	Green 2 nd choice	Alimentum® - as of Sept 22 unavailable due to precautionary recall	0-12 months	
		Nutramigen 1 with LGG®***	0-6 months	
		Nutramigen 2 with LGG®***	6-12 months	
Amber	Aptamil Pepti Syneo®***^	0-12 months		
Amino acid formula (AAF)	Green 1 st choice	SMA® Alfamino, Neocate LCP®, Nutramigen Puramino®	0-12 months	AAF: Indicated if anaphylactic reaction/ severe IgE or severe non-IgE-mediated CMPA reactions Severe IMMEDIATE IgE-mediated CMPA <ul style="list-style-type: none"> Refer urgently to Allergy Clinic Severe DELAYED non-IgE-mediated CMPA <ul style="list-style-type: none"> Refer to Community Paediatric Dietitian and Paediatrician
	Green 2 nd choice	Elecare®- as of Sept 22 unavailable due to precautionary recall		
	Amber	Neocate Syneo®***^		
Soya formula	OTC	SMA® Soya Infant Formula	6-12 months	Exceptional circumstances only <ul style="list-style-type: none"> If infant refuses EHF, no allergy to soya and infant >6 months: parent/carer may purchase
Supermarket dairy milk alternatives	OTC	Alpro® Soya/Oat Growing Up Drink 1-3 + Years Oatly® Oat Drink Barista Edition Oatly® Oat Drink Whole	12+ months	<ul style="list-style-type: none"> If infant > 1 year: can be purchased and used as main milk drink, can be used in food from 6 months
KEY: Prescribe First Line		Prescribe if first line not an option or not working	Prescribe at recommendation of Specialist/Dietitian	Over the counter product

7. Quantities to prescribe:

To avoid waste, initially prescribe maximum of 1 week supply in case there are palatability issues or until tolerance/compliance is established.

Age of child	Average total volume feed per day (estimated)	No of tins required for 28 days complete nutrition	Department of Health recommendations (based on average weight for age)
Under 6 months	1000mls	10 x 400g (or 450g)	Exclusively formula fed based on 150mls/kg/day of a normal concentrated formula
6 – 9 months	800mls	8 x 400g (or 450g)	Requiring less formula with increased weaning and solid intake
9 – 12 months	600mls	6 x 400g (or 450g)	
Over 12 months – dietitian review for continued need for formula	600mls	6 x 400g (or 450g)	Requiring 600mls of milk or milk substitute per day

NB: Some children may require more e.g. those with faltering growth. This table provides guidance only. Follow advice of specialist or dietitian.

Case 2

- 14y old chronic headaches fam hx of migraine, for prevention
 - A. pizotifen
 - B. propranolol
- **Scope of practice?**
- **Is there a guideline?**
- <https://www.what0-18.nhs.uk/professionals/gp-primary-care-staff/paediatric-pathways>

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
- 2. Follow guideline if present, is it within your scope of your practice?**
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 3

- 4 month old bottle fed baby – “excessive crying” - colic
- no vomiting gaining weight and milestones
- Skin and examination normal
- **Treatment options**
 1. Infacol/colic aid
 2. Paracetamol
 3. Probiotics
 4. Gripe water

Colic - Evidence

Open access



Table 7 Summary of meta-analyses of treatments for infant colic measured by number of crying episodes

Author	Intervention	Time point	Number of crying episodes	Effect	Level of evidence	AMSTAR
Gordon <i>et al</i> ¹⁸	Simethicone	14 days	3.32 more episodes of crying and fussing with simethicone compared with partially hydrolysed formula	Not favourable c/w partially hydrolysed formula	Very low	8
Mugambi <i>et al</i> ²⁵	Probiotics	Up to 7 months	MD 0.60 (95% CI 0.20 to 1.00) in favour of control for 1 out of 4 studies reported	Not favourable	Low	8
Skórka <i>et al</i> ²⁶	Probiotics	4 weeks to 36 months	Colic symptoms and crying	Inconclusive (not favourable)	Low	7

MD, mean difference.



Infant crying is normal



Comforting methods can help



It's OK to walk away



Never, ever shake a baby

Table 9 National guideline recommendations infantile colic

Recommendation/suggestion	UK 2013 2017*	USA 2015†	Ireland 2014‡
Clinician evaluation of mother and baby	✓	✓	✓
Parenting information, advice, support and reassurance	✓	✓	✓
Continue breast feeding	✓	✓	
Maternal diet modification	×	✓	
Change formula if formula fed (+unless milk allergy identified)	×+	✓	
Probiotic supplements (++)breastfed-only infants)	×	✓++	✓
Simethicone (eg, infacol)	×	×	
Herbal supplements (eg, fennel)	×	×	
Proton pump inhibitors (eg, omeprazole, Losec)		×	
Lactase (eg, Co-lief drops)	×		
Aniticholinergic medication (including dicyclomine)		×	
Gripe water		×	
Medicine generally			
Infant massage			✓
Manual therapy (including spinal manipulation and cranial osteopathy)	×	×	
Physical contact (eg, holding, rocking)	✓		✓
White noise	✓		
Bathing	✓		
Winding	✓		
Swaddling		×	

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
- 3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?**
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Un/Off Licensed – Next Speaker

To get a licence, a company must conduct clinical trials to show that the medicine works and that it is safe to use.

Trials are almost always done with adults first.

To obtain a licence for use in children, clinical trials involving children are required.

After a medicine has been used for some time in adults, more is known about how it works and its possible SE

Giving a medicine in a different way from that described in its licence, is called ‘unlicensed’ or ‘off-licence’ use

The following are **examples of unlicensed use**:

- » use of a licensed medicine for an **age group** that is not included in its licence
- » use of a licensed medicine for an **illness** that is not included in its licence.
- » use of a medicine that is **only available from abroad** & imported (it may have a licence in other countries)
- » use of a medicine that needs to be made specially because it cannot be obtained easily; for example, a patient may not be able to swallow a tablet or capsule (which is licensed) & needs a liquid (unlicensed) version

Many medicines that are widely given to children are used in a way that is unlicensed.

Case 4

4 year old boy painful hard pellet stools with streaks of blood.

Treatment options:

- 1. Increase fibre in diet eg fruit and veg and drink more water
- 2. Lactulose
- 3. Senna
- 4. Macrogol

- End point goal/ titration - eg Constipation
- Trial of treatment - eg :Asthma inhalers - afternoon session

Management of idiopathic constipation - Impacted

Step 1

- Paediatric Macrogol
- Escalating dose regime mixed with a cold drink

Step 2

- If no disimpaction after 2 weeks
- Add stimulant laxative

Step 3

- If unable to tolerate Macrogol
- Substitute stimulant laxative +/- osmotic laxative

A Parent's Guide to Disimpaction

If your child has been constipated for more than a few days your doctor or nurse may say that they need to follow a **disimpaction regime**. This means giving laxatives in sufficiently large quantities to 'clear out' all the accumulated poo.

It is important to follow their advice; if you give a standard dose of laxative it is likely to soften the poo but not stimulate the bowel to empty fully. This means that symptoms such as soiling may get worse rather than better!

NICE Guidelines – Constipation in Children and Young People (CG99) recommend disimpacting with paediatric macrogol sachets as follows:

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Child under 1	½-1	½-1	½-1	½-1	½-1	½-1	½-1
Child 1-5 years	2	4	4	6	6	8	8
Child 5-12 years	4	6	8	10	12	12	12

Children over 12 years should be treated with the adult preparation – the macrogol is exactly the same but there is twice as much in the sachet:

	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Child over 12	4	6	8	8	8	8	8

The macrogol sachets might be called Medical Grade Cal-Mag. For more information on macrogol sachets:

Tag cloud

[Bedwetting](#) | [Bedwetting alarms](#) | [Bladder problems](#) | [Bowel problems](#) | [Constipation](#) | [Daytime bladder problems](#) | [Fundraising](#) | [Nocturnal enuresis](#) | [Parents](#) | [Pathway](#) | [Potty training](#) | [School toilets](#) | [Soiling](#) | [Teenagers](#) | [Toilet training](#) | [Training](#)



Facebook Live Bedwetting Q & A

A Facebook Live Q&A with Davina (Bladder and Bowel UK) and Alina (ERIC) talking about how to manage and treat bedwetting.

Toilet posture










Constipation treatment goals:
Keep Macrolog going to achieve:

1. Daily stool passage
2. No pain
3. No blood
4. No overflow

Repeat prescriptions as needed
with family self managing

Bristol Stool Chart - Developed at University of Bristol

Type.1		Separate hard lumps, like nuts (hard to pass)
Type.2		Sausage-shaped but lumpy
Type.3		Like a sausage with cracks on its surface
Type.4		Like a sausage, smooth and soft
Type.5		Soft blobs, clear cut edges (passed easily)
Type.6		Fluffy pieces, ragged edges, mushy stool
Type.7		Watery, no solid pieces. Entirely liquid

Lewis SJ, Heaton KW (1997). "Stool form scale as a useful guide to intestinal transit time". *Scand. J. Gastroenterol.* **32** (9): 920-4



Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
- 4. Trial or treatment, are the end points clear?**
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 5

- 3 year old, fever, cough and rash
- Diagnosis ?

- Mother penicillin allergy

Treatment options:

- A. Clarithromycin 5 days
- B. Penicillin 5 days
- C. Penicillin **10 days**



How common in penicillin allergy?

- Approx 10% of patients report an allergy to penicillin.
- However, the majority (> 90%) may not truly be allergic.
- Most people lose their penicillin allergy over time, even patients with a history of severe reaction such as anaphylaxis.

Is penicillin allergy genetic?

- No predictable pattern to inheritance of penicillin allergy.
- Do not need to avoid penicillin if a family member is allergic to penicillin.

Paediatric Prescribing

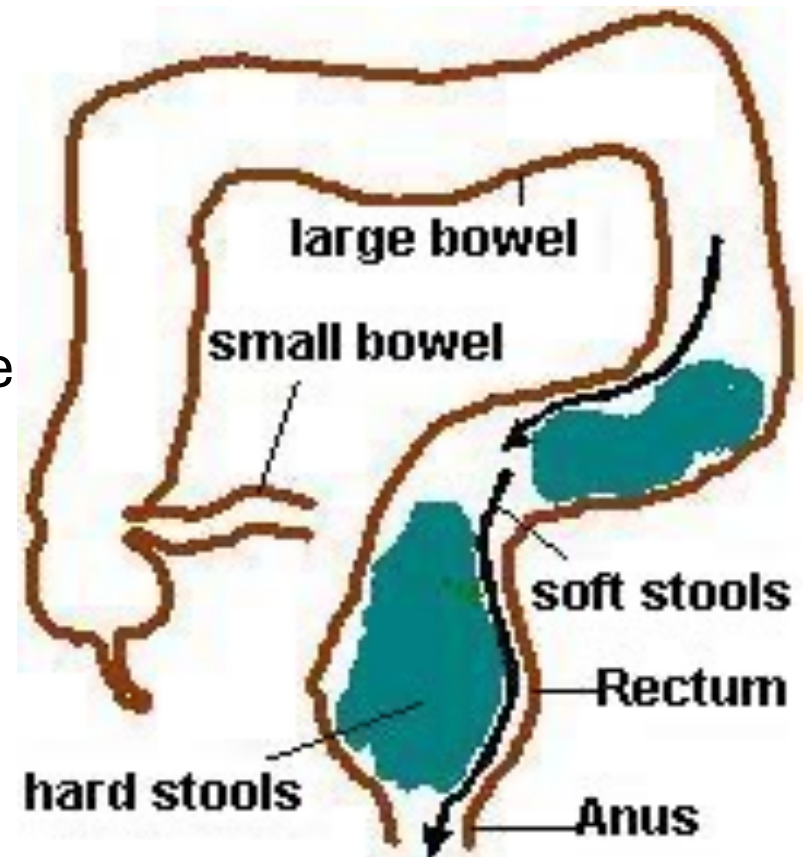
1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
- 5. Check interactions/allergies/familial concerns - any contraindications?**
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 6

- 6 yr old with constipation
- Movicol paediatric 1 sachets BD
- Mum returns next day - excessive loose
- Feels too much of a dose

Options:

- 1. Stop
- 2. Change to lactulose
- 3. Continue same dose Movicol



Paediatric Prescribing

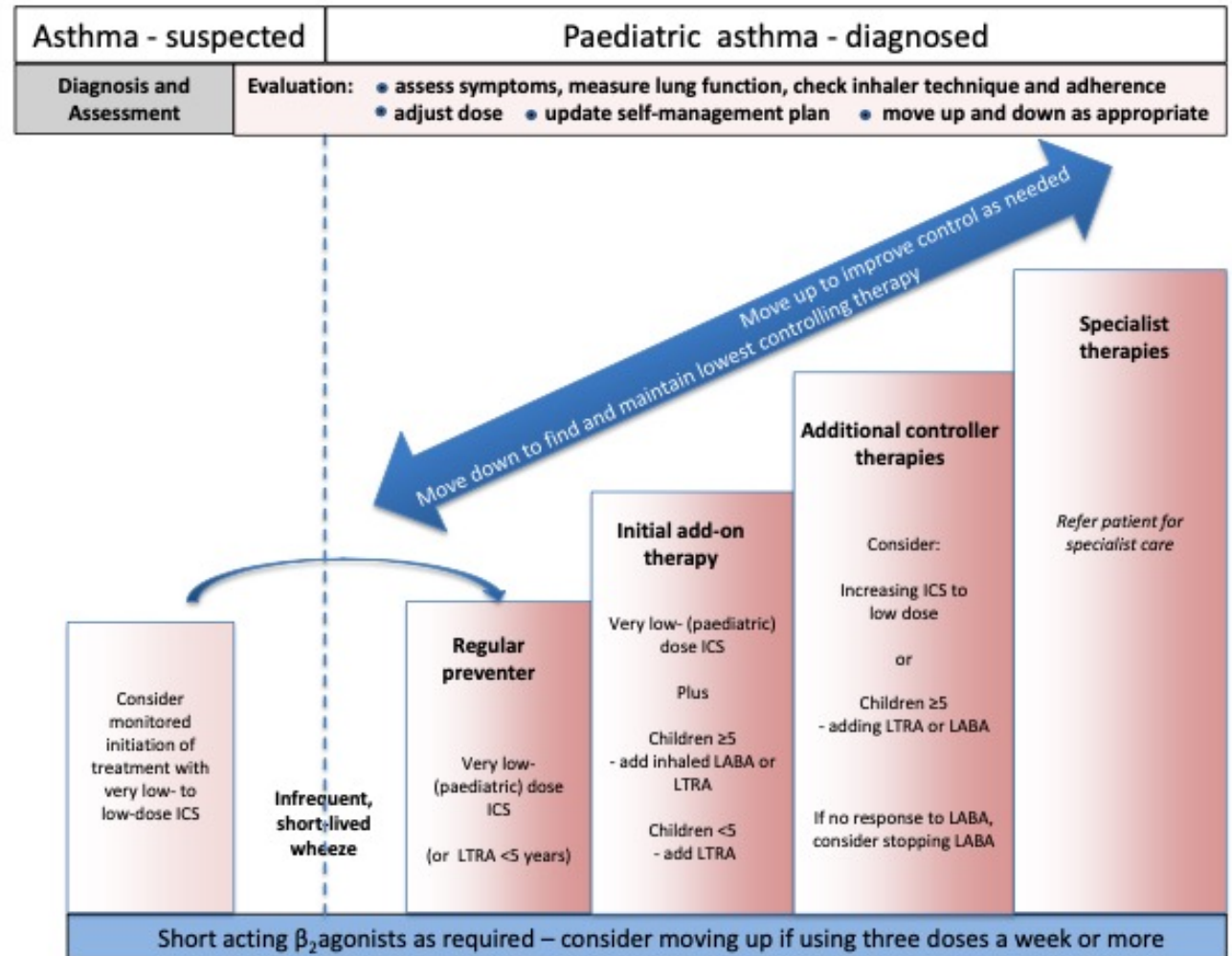
1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
- 6. Will the side effects be tolerated/ Special needs? Any recent media ?**
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 7

- 4 year old
- Cough, wheezy, fam hx atopy
- Started with low dose ICS
- 3 months review
- Symptoms persist

Management:

1. Check technique
2. Add LABA +1
3. Add Montelukast (LTRA) +1



The Observer
Asthma

● This article is more than **3 months old**

'A healthy kid dies and there has been no change': parents' anger over lack of warnings for blockbuster asthma drug

Teenager Harry Miller took his own life two years after being prescribed montelukast. His family say they were not made aware of the reported psychiatric side-effects of the drug

Jon Ungoed-Thomas

Sun 3 Mar 2024 07:00 GMT

[Share](#)



[Medicines advice](#) | [Medicines alerts](#)

Behavioural and sleep effects with montelukast

Montelukast is an important medicine used to treat asthma in children and adults, but it may cause nightmares when starting treatment.

July 21, 2022

[Share this page](#)[Facebook](#)[Twitter](#)[Email](#)

Incidence. 1:100

Montelukast has been used to treat asthma for a number of years, and as more studies on side effects have been carried out, it is thought that up to 20% of children (one out of five) may get nightmares or have difficulty sleeping when they first start treatment. These side-effects are most common in children aged 5–10 years but can occur in children of all



<https://www.medicinesforchildren.org.uk/news/behavioural-and-sleep-effects-with-montelukast/>

[Home](#) > [Drug Safety Update](#)

Montelukast (Singulair): reminder of the risk of neuropsychiatric reactions

Prescribers should be alert for neuropsychiatric reactions in patients taking montelukast and carefully consider the benefits and risks of continuing treatment if they occur.

From: [Medicines and Healthcare products Regulatory Agency](#)

Published 19 September 2019

Therapeutic area: [Paediatrics and neonatology](#), [Psychiatry](#), [Respiratory disease and allergy](#)

Contents

— [Review of known risk of neuropsychiatric reactions](#)

<https://www.gov.uk/drug-safety-update/montelukast-singulair-reminder-of-the-risk-of-neuropsychiatric-reactions>

Case 8

- Diagnosis?

Treatment options:

- A. Topical Fucidin ointment
- B. Topical Mupirocin
- C. Oral Flucloxacillin
- D. Oral Augmentin



Antibiotics for Strep A infection

The recent increase in cases of Strep A infection has meant that more children than usual are being prescribed antibiotics. But this has meant that patients in some areas of the UK have had difficulties getting the antibiotics they have been prescribed.

December 15, 2022

Share this page

[Facebook](#)

[Twitter](#)

[Email](#)

Is there a shortage of antibiotics?

- The UK is currently experiencing an increase in cases of Strep A infection. For more information on this, see our previous news article [here](#).
- Prompt treatment of scarlet fever with antibiotics is recommended to reduce the risk of more serious infection, and to help prevent the spread.
- This has led to more people being prescribed antibiotics than usual and in some areas of the country, patients are having difficulties in getting their prescribed antibiotics.
- This is because of problems with stock control and distribution of antibiotics across the UK following the increase in demand.

<https://www.medicinesforchildren.org.uk/news/antibiotics-for-strep-a-infection/>



Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
- 7. What are the alternatives if not tolerated/ supply issues?**
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 9 – 9 month persistent dry cough



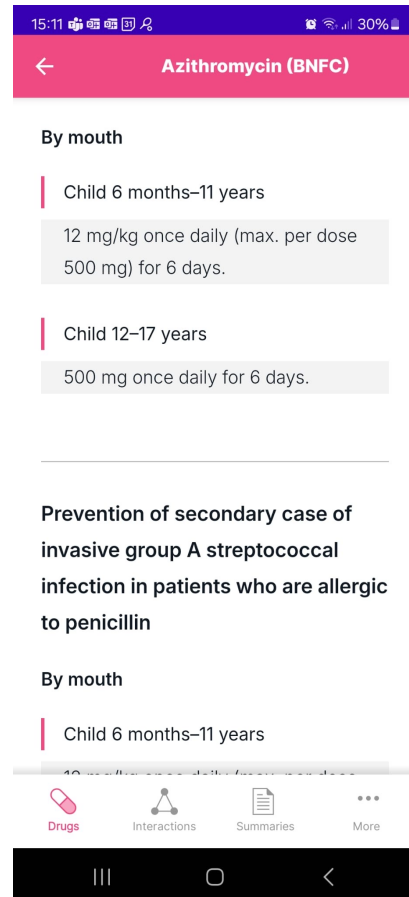
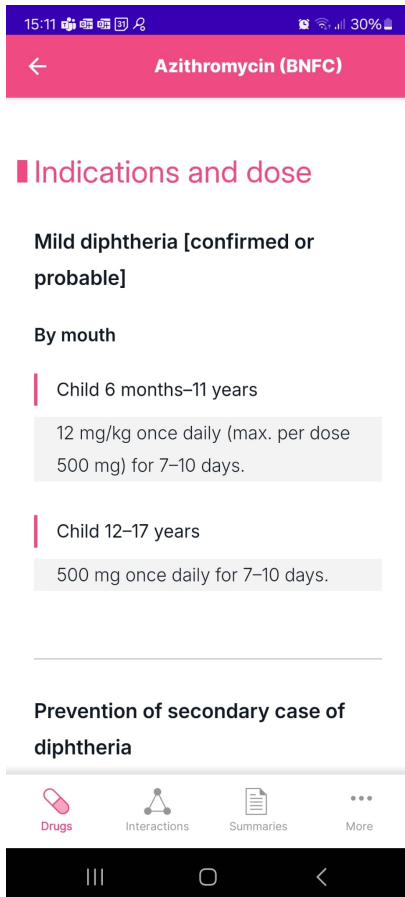
Diagnosis?

Management:

1. Penicillin V
2. Co—Amoxiclav
3. Azithromycin

Advice?

Different indications.. app vs webpage?



- <https://bnfc.nice.org.uk/drugs/azithromycin/>



Guidance on the management of cases of pertussis in England during the re-emergence of pertussis in 2024

<https://www.gov.uk/government/publications/pertussis-guidelines-for-public-health-management>

Update: June 2024

Age group	Clarithromycin [note 1]	Azithromycin [note 1]	Erythromycin	Co-trimoxazole [note 1] ³
Neonates ⁴ (<1 month)	Preferred in neonates 7.5mg/kg twice a day for 7 days	10mg/kg once a day for 3 days	10 to 15mg/kg every 6 hours for 7 days	Not licensed for infants below 6 weeks
Infants (1 month to 12 months) and children (12 months and older)	<p>1 month to 11 years:</p> <p>Under 8kgs 7.5mg/kg twice a day for 7 days</p> <p>8 to 11kg 62.5mg twice a day for 7 days</p> <p>12 to 19kg 125mg twice a day for 7 days</p> <p>20 to 29kg 187.5mg twice a day for 7 days</p> <p>30 to 40kg 250mg twice a day for 7 days</p> <p>12 to 17 years: 500mg twice a day for 7 days</p>	<p>1 to 6 months: 10mg/kg once a day for 3 days</p> <p>> 6 months: 10mg/kg (max 500mg) once a day for 3 days</p>	<p>1 to 23 months: 125mg every 6 hours for 7 days [note 2]</p> <p>2 to 7 years: 250mg every 6 hours for 7 days [note 2]</p> <p>8 to 17 years: 250 to 500mg every 6 hours for 7 days [note 2]</p>	<p>6 weeks to 5 months: 120mg twice a day for 7 days</p> <p>6 months to 5 years: 240mg twice a day for 7 days</p> <p>6 to 11 years: 480mg twice a day for 7 days</p> <p>12 to 17 years: 960mg twice a day for 7 days</p>

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
- 8. BNFC – correct dose for indication/wt – double check calc**
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 10

- 12 year old with chest infection
- You want to give high dose amoxicillin

Community-acquired pneumonia

By mouth

Child 1–11 months

125 mg 3 times a day for 5 days, increased if necessary up to 30 mg/kg 3 times a day.

Child 1–4 years

250 mg 3 times a day for 5 days, increased if necessary up to 30 mg/kg 3 times a day.

Child 5–11 years

500 mg 3 times a day for 5 days, increased if necessary up to 30 mg/kg 3 times a day (max. per dose 1 g).

Child 12–17 years

500 mg 3 times a day for 5 days, increased if necessary up to 1 g 3 times a day.

Case 10

- 1 gram TDS
- Can't swallow tablets !!

Amoxicillin 250mg/5ml oral suspension sugar free *Sigma Pharmaceuticals Plc*

SUGAR FREE

▼ [Show](#)

20 ml TDS = 60ml/day

Amoxicillin 500mg/5ml oral suspension sugar free *A A H Pharmaceuticals Ltd*

SUGAR FREE

▼ [Show](#)

10ml TDS = 30ml/day

100ml bottle

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
- 9. Make prescription – solution/ tablet – can the child swallow?**
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

<https://www.medicinesforchildren.org.uk/advice-guides/giving-medicines/>

How to give different types of medicines

This section provides videos and information about how to give different formulations of medicines to your child.

<https://www.what0-18.nhs.uk/parentscarers/worried-your-child-unwell/teaching-your-child-swallow-tablets>



[How to give medicines: liquid medicine using an oral syringe from a bottle with a bung](#)

This page describes how to give liquid medicine to children from a bottle with a bung. Specific information on individual medicines is available on the Medicines Information pages.

[Read more](#) →



[How to give medicines: liquid medicine using an oral syringe from a bottle without a bung](#)

This page describes how to give liquid medicine to children from a bottle without a bung. Specific information on individual medicines is available on the Medicines Information pages.

[Read more](#) →



[How to give phosphate or calcium from effervescent tablets](#)

Liquid calcium or phosphate medicines are not available so you may be asked to make a mixture by dispersing (dissolving) an effervescent tablet in water and giving your...

[Read more](#) →



[How to give medicines: creams and ointments](#)



[How to give medicines: granules and powders](#)



[How to give medicines: ear drops](#)



[How to give medicines: inhalers for asthma](#)

This page provides instructions on how to use inhalers for asthma. These include 'preventer inhalers', which are used regularly in order to prevent attacks (this is sometimes called...

[Read more](#) →



[How to give medicines: tablets](#)

This page describes how to give tablets to children. Specific information about individual medicines is available on the Medicines Information pages.

[Read more](#) →



[How to give medicines: capsules](#)

This page describes how to give capsules to children. Specific information about individual medicines is available on the Medicines Information pages.

[Read more](#) →



[How to give medicines: liquid medicine using an oral syringe from a bottle with a bung](#)

This page describes how to give liquid medicine to children from a bottle with a bung. Specific information on individual medicines is available on the Medicines Information pages.



[How to give medicines: liquid medicine using an oral syringe from a bottle without a bung](#)

This page describes how to give liquid medicine to children from a bottle without a bung. Specific information on individual medicines is available on the Medicines Information pages.



[How to give phosphate or calcium from effervescent tablets](#)

Liquid calcium or phosphate medicines are not available so you may be asked to make a mixture by dispersing (dissolving) an effervescent tablet in water and giving your...

Case 11

- 1 year old with congenital heart disease under long term cardiology follow up
- Repeat medications of **Furosemide** managed by you
- Mum places an order for repeat solution, She has been giving
- **1.5 ml of Furosemide Solution twice daily for the last 2 mo**
- Recent letter confirms dose.
- Please make the prescription

Case 11

Furosemide 20mg/5ml oral solution sugar free *Thame Laboratories Ltd*

SUGAR FREE

▼ [Show](#)

Furosemide 40mg/5ml oral solution sugar free *Thame Laboratories Ltd*

SUGAR FREE

▼ [Show](#)

Frusol 50mg/5ml oral solution *Rosemont Pharmaceuticals Ltd*

SUGAR FREE

▼ [Show](#)

1.5 ml = 6 mg
1.5 ml = 12 mg
1.5 ml = 15 mg

▼ [Navigate to section](#)

Fragmin 10,000units/4ml solution for injection ampoules

▼ [Show](#)

Fragmin 10,000units/4ml solution for injection vials *Pfizer Ltd*

▼ [Show](#)

Fragmin 10,000units/1ml solution for injection ampoules

▼ [Show](#)

Fragmin Graduated Syringe 10,000units/1ml solution for syringes *Pfizer Ltd*

▼ [Show](#)

Fragmin 2,500units/0.2ml solution for injection pre-filled

▼ [Show](#)

Fragmin 10,000units/0.4ml solution for injection pre-filled

▼ [Show](#)

Fragmin 100,000units/4ml solution for injection vials *Pfizer Ltd*

▼ [Show](#)

Fragmin 12,500units/0.5ml solution for injection pre-filled

▼ [Show](#)

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
- 10. For dilution/solutions explain concentrations to family-visual / written down instructions.**
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 12

- 2 year old, wt 15 kg

Diagnosis?

Bloods – low vit D and calcium

Make a prescription for calcium

<https://bnfc.nice.org.uk/drugs/calcium-carbonate/>





Rounding up/down

- Specify concentration if prescribing in mls
- Rounding up – 4.85 ml = 5 ml

Maximum dose in 24 hours? Eg. Paracetamol

Calculations

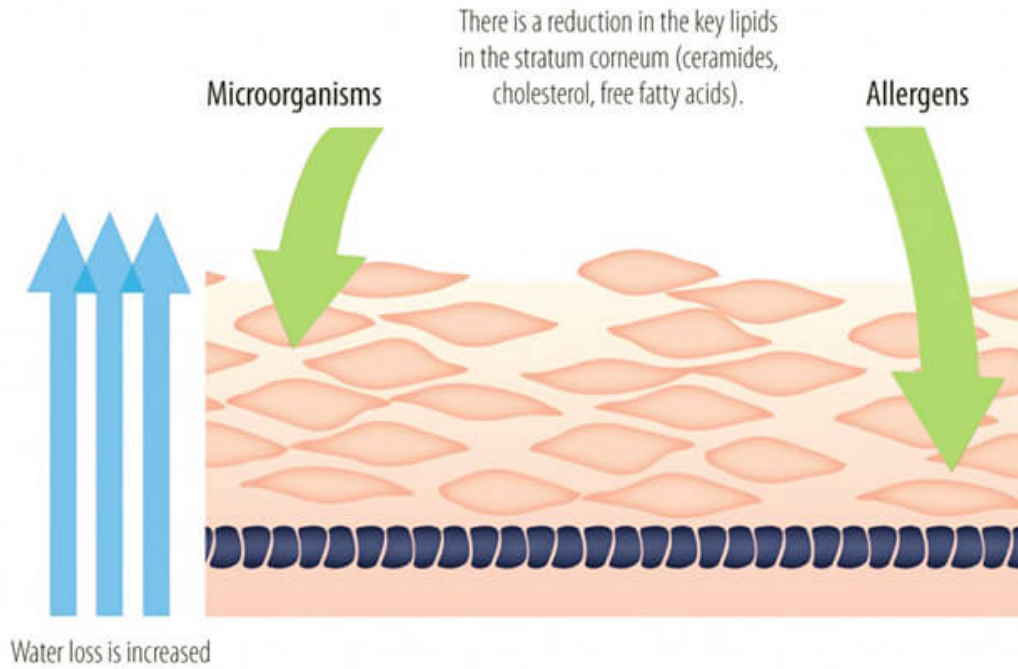
- Don't calculate drug doses without a calculator
- Double check calculations

Case 13



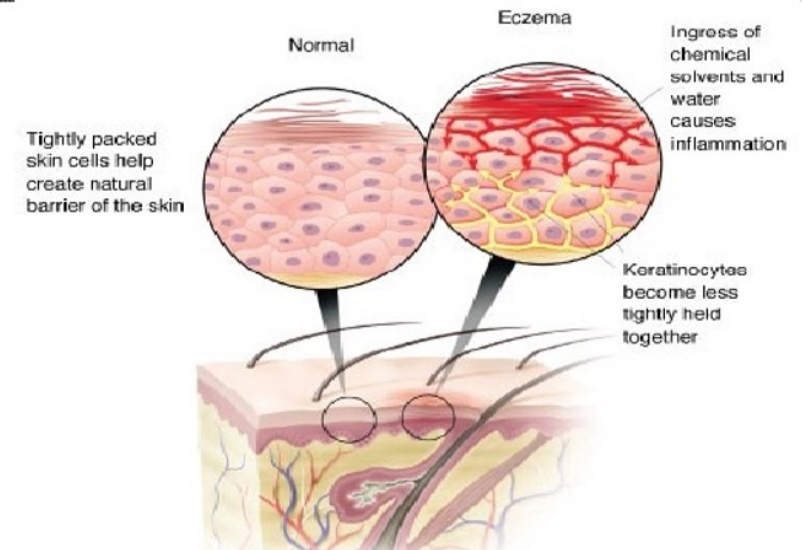
- Diagnosis?
- Management?

Skin Barrier in Atopic Dermatitis (Eczema)



Principles of eczema treatment

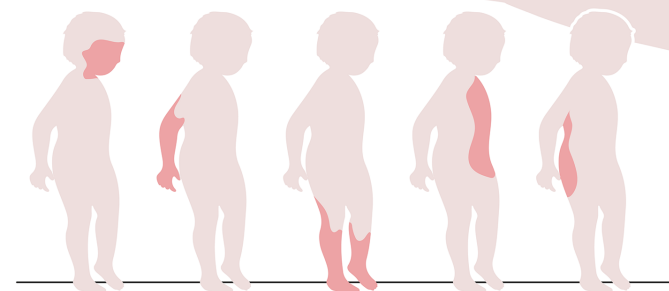
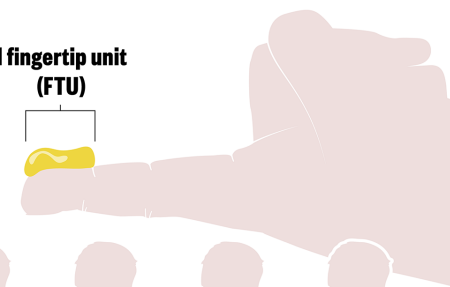
Eczema: loss of waterproofing of the skin



CLEAR	MILD	MODERATE	SEVERE
Physical assessment			
<ul style="list-style-type: none"> No evidence of active atopic eczema 	<ul style="list-style-type: none"> Areas of dry skin Infrequent itching (with or without small areas of red, purple or darkening of existing skin colour) 	<ul style="list-style-type: none"> Areas of dry skin Frequent itching Red, purple, or darkening of existing skin colour (with or without excoriation and localised skin thickening) 	<ul style="list-style-type: none"> Widespread areas of dry skin Incessant itching Red, purple, or darkening of existing skin colour (with or without excoriation, extensive skin thickening, bleeding, oozing, cracking and alteration of pigmentation)
Treatment options			
Emollients			
Topical corticosteroids			
		Topical calcineurin inhibitors*	
		Bandages	
			Phototherapy

A fingertip unit is the amount of product that covers the tip of the caregiver's index finger to the distal skin crease from a standard 5mm tube and is sufficient quantity for an area of skin equal to the palms of two adult hands.

1 fingertip unit (FTU)



Face and neck Arm and hand Leg and foot Anterior chest and abdomen Back and buttocks

3-12 months	1 FTU	1 FTU	1.5 FTU	1 FTU	1.5 FTU
1-3 years	1.5 FTU	1.5 FTU	2 FTU	2 FTU	3 FTU
3-6 years	1.5 FTU	2 FTU	3 FTU	3 FTU	3.5 FTU
6-10 years	2 FTU	2.5 FTU	4.5 FTU	3.5 FTU	5 FTU
>10 years	2.5 FTU	4 FTU	8 FTU	7 FTU	7 FTU



TOP TIPS:

- Wash hands before applying TCS to reduce risk of infection;
- TCS can be applied before or after emollients;
- Leave at least one hour between applying the two treatments to allow for absorption, e.g. apply emollients in the morning and TCS 30 minutes before bedtime;
- Apply once daily; can be used on broken skin;

Primary Care Emollient Options

*This guideline has been developed for the management of patients with a **diagnosed** dermatological condition. NHSE recommend that patients with mild dry skin can be successfully managed using OTC products on a long term basis.*

Product	Pack size	Cost/pack Drug Tariff April 19	Container	Notes (Please note: Alternatives are based on paraffin % and does not compare excipients or sensitisers)
CREAMS & GELS (Moderate dry skin)				
Epimax® Cream ^{SS}	500g	£2.49	Flexidispenser	Alternative to DIPROBASE CREAM (£6.32)
Isomol® Gel ^{SS}	500g	£2.92	Flexidispenser	Alternative to DOUBLEBASE GEL (£5.83)
ExCetra® Cream ^{SS}	500g	£2.95	Flexidispenser	Alternative to CETRABEN CREAM (£5.39)
Epimax® Oatmeal Cream ^{SS}	500g	£2.99	Flexidispenser	Alternative to AVEENO CREAM (£6.47)
ZeroAQS® Emollient Cream ^{SS}	500g	£3.29	Tub	Alternative to AQUEOUS CREAM (£3.85)SLS Free
Cetomacrogol Formula A Cream	500g	£3.99	Tub	
Aquamax® Cream ^{SS}	500g	£3.99	Tub	
Aproderm® Gel	500g	£3.99	Pump dispenser	Alternative to DOUBLEBASE GEL (£5.83)
Zerocream®	500g	£4.08	Pump dispenser	Alternative to E45 CREAM (£5.62)
AproDerm® Emollient Cream ^{SS}	500g	£4.95	Pump dispenser	
OINTMENTS (Severe dry skin)				
Epimax® Ointment ^{SS}	500g	£2.99	Tub	
Fifty:50 Ointment	500g	£3.66	Tub	NOTE: not suitable for use as a soap substitute
AproDerm® Ointment	500g	£3.95	Tub	NOTE: not suitable for use as a soap substitute
Zeroderm® Ointment ^{SS}	500g	£4.10	Tub	
Hydromol® Ointment ^{SS}	500g	£4.96	Tub	Alternative to EPADERM OINTMENT (£6.53) NOTE: Hydromol Cream (£12.02)
Epimax® Paraffin-Free Ointment ^{SS}	500g	£4.99	Tub	

Strength of Topical Steroids

Severe



Moderate



Mild

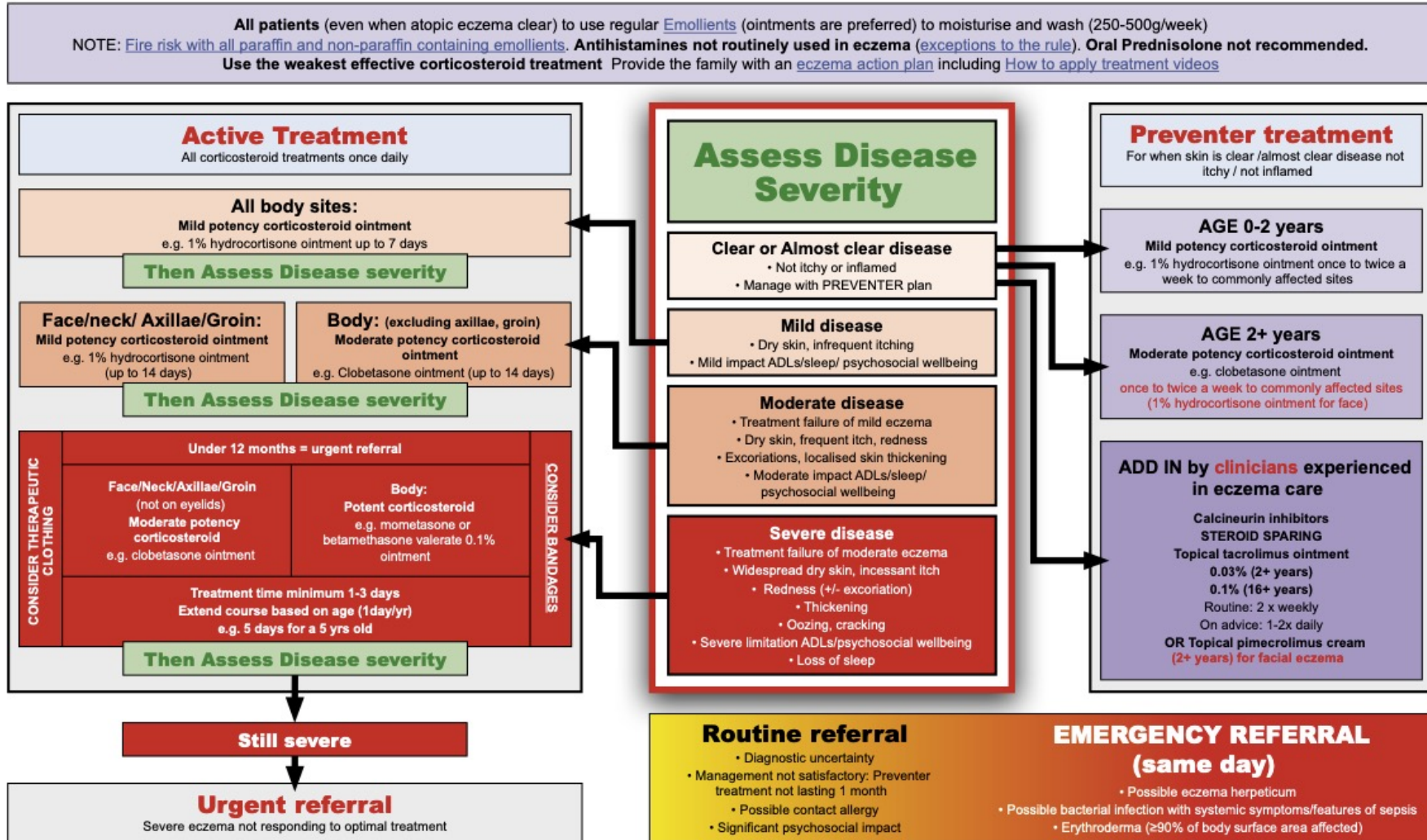


Increasing potency

Atopic eczema in children clinical pathway



Primary care treatment ladder for managing atopic eczema in children





Homepage About us Allergy Videos Public Useful Information

Itchy Sneezy Wheezy

Everything you need to know about allergies . . .

< Back

Eczema videos (13)

	Eczema - 1 Finding out about eczema
	Eczema - 2 Impact on family and social life
	Eczema - 3 Baby bath time
	Eczema - 4 Applying creams
	Eczema - 5 Moisturisers for eczema
	Eczema - 6 Medicated creams for eczema
	Eczema - 7

A video player interface showing a video of a baby sitting in a stroller. The video player has a play button in the center and a progress bar at the bottom showing 00:00. The video is part of a collection of 13 eczema-related videos.

- <https://www.itchysneezywheezy.co.uk/EczemaVideos.ht>

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
- 11. Demonstrate use if creams/ inhalers.**
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 14

- Exccema with recurrent staph infections
- Management options?



Case 15

- 14 year , **Wt 85 kg BMI 38-**
- needs prescription of IV gentamicin for UTI

Acute pyelonephritis (once daily dose regimen),

Urinary tract infection (catheter-associated, once daily dose regimen)

By intravenous infusion

Child 3 months–15 years

Initially 7 mg/kg once daily, subsequent doses adjusted according to serum-gentamicin concentration.

Child 16–17 years

Initially 5–7 mg/kg once daily, subsequent doses adjusted according to serum-gentamicin concentration.

<https://www.sps.nhs.uk/articles/how-should-medicines-be-dosed-in-children-who-are-obese/>

Box 1: Example of IBW calculation using Moore's method

A 7 year old girl who is 1.2m tall and weighs 32kg

Step 1: Identify the height centile UK WHO growth charts

The height is around the 50th centile.

Step 2: Identify the weight at the 50th centile UK WHO growth charts

50th centile weight for a 7 year old girl is 23kg.

Box 2: Example of AdjBW calculation using IBW

A 7 year old girl who weighs 32kg and is 1.2m tall

BW using Moore's method = 23kg

- $\text{AdjBW} = \text{IBW} + 0.35 \times (\text{TBW} - \text{IBW})$
- $\text{AdjBW} = 23\text{kg} + 0.35 \times (32\text{kg} - 23\text{kg}) = 26.2\text{kg}$

RCPCH GROWTH CHARTS

<https://www.rcpch.ac.uk/resources/uk-who-growth-charts-2-18-years>

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
- 12. Health Promotion / Lifestyle modification needed?**
13. Address compliance / Medications in school / Transition age
14. If SE yellow card reporting.

Case 16

- 16 year old with chronic asthma
- Asthma review – 5 blue inhalers in 6mo, on LABA & low dose ICS

Management options:

- A. increase to higher dose ICS
- B. SMART regimen
- C. Refer to specialist
- D. Discuss compliance

Single maintenance and reliever therapy (SMART)

For Symbicort 200/6 Turbohaler®

[^ Hide](#)

Asthma, maintenance therapy

By inhalation of powder

Child 12–17 years

Initially 1–2 puffs twice daily; reduced to 1 puff daily, dose reduced only if control is maintained.

Asthma, maintenance and reliever therapy

By inhalation of powder

Child 12–17 years

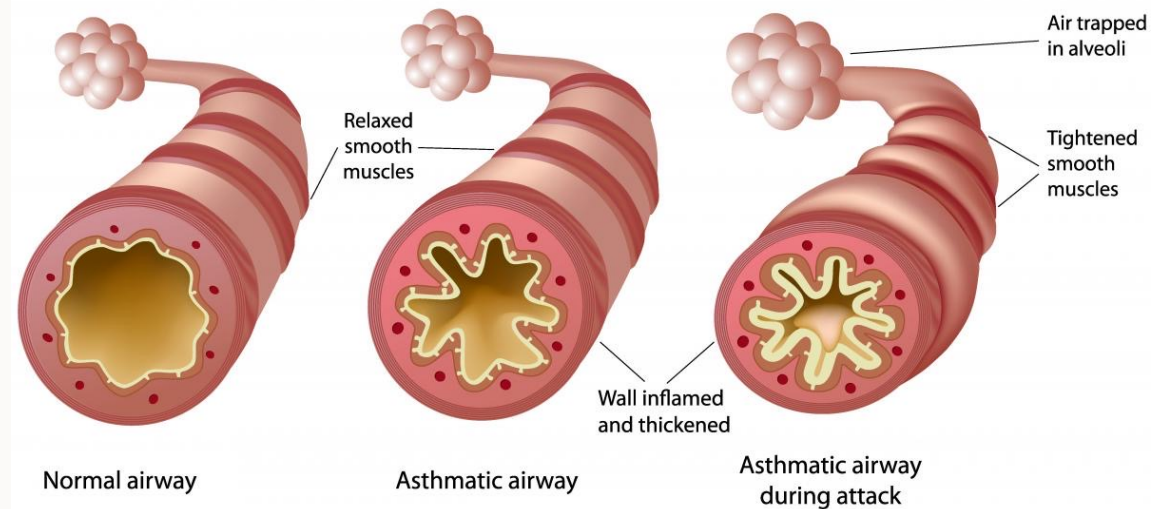
Maintenance 2 puffs daily in 1–2 divided doses, increased if necessary to 2 puffs twice daily; 1 puff as required for relief of symptoms, increased if necessary up to 6 puffs as required, max. 8 puffs per day; up to 12 puffs daily can be used for a limited time but medical assessment is recommended.

Mild asthma, reliever therapy

By inhalation of powder

Child 12–17 years

1 puff as required for relief of symptoms, increased if necessary up to 6 puffs as required, max. 8 puffs per day; up to 12 puffs daily can be used for a limited time but medical assessment is recommended.



Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
- 13. Address compliance / Medications in school / Transition age**
14. If SE yellow card reporting.

"We understand that moving away from a team of doctors and nurses that you have been with for many years can be scary, but hopefully by getting involved in the transition process, you will feel more confident and happier about the move."

The TIER network team

Who is the Ready Steady Go Programme for?

- You, if you or your child, is over 11 years old with a long term condition

What is it?

- A programme to help you gain the knowledge and skills to manage your own condition

What are the benefits of the programme?

- Improves long term outcomes
- Helps you gain the confidence and skills to move to adult care

The 'Ready Steady Go' programme

Providing support for young people moving from children's to adult health services. In healthcare, the process of preparing, planning and moving from children's to adult services is called transitioning





About

Ready Steady Go Programme

Specialities

Education

Shared Decision Making

Ready Steady Go programme

In healthcare, we use the word 'transition' to describe the process of preparing, planning and moving from children's to adult services.

We understand that moving away from a team of doctors and nurses that you have been with for many years can be scary, but hopefully by getting involved in the transition process, you will feel more confident and happier about the move.

To support you through transition, we've developed the **Ready Steady Go** transition programme, which you can read more about by clicking the icons below.

<https://www.readysteadygo.net/ready-steady-go.html>

Who is it for?

You, if you or your child, is over 11 years old with a long term condition

What is it?

A programme to help you gain the knowledge and skills to manage your own condition

Why?

Improves long term outcomes
Helps you gain the confidence and skills to move to adult care

How?

Ask your team about the Ready Steady Go programme and start by looking at the documents below

Paediatric Prescribing

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
13. Address compliance / Medications in school / Transition age
- 14. If SE yellow card reporting.**



Start your report

You have selected - AMOXICLAV

We now need to ask for some additional information to start your report

Are you a member of the public or a healthcare professional?

Please select



Next step

Focus on 'excipients' in children's medicines



- **Peanut oil (Arachis):** Used to dissolve some medicines, particularly vitamin D drops. If your child is allergic to peanuts, tell your pharmacist so that a different formulation can be provided.
- **Aspartame:** An alternative sweetener that may be used instead of sugar. Children who have phenylketonuria should avoid aspartame because it is converted to phenylalanine in the body.
- **Gluten:** Most medicines can be described as gluten-free. However, medicines may occasionally contain wheat starch, which children with coeliac disease need to avoid.
- **Colourings:** Liquid medicines may contain colouring agents that some people are sensitive to. Colour-free forms are available for some medicines.
- **Sugar:** People with diabetes need to be aware of sugars in medicines. Sugar-free forms may be available.
- **Preservatives:** May be added to liquid medicines to increase their shelf-life. Preservatives such as parabens (also known as methyl, ethyl or propyl hydroxybenzoates) have been linked to potential allergic reactions. Other preservatives need to be avoided where possible in very young babies, including premature babies e.g. sodium benzoate. Other options may be needed in these children.

The most common ones containing **peanut oil** (focusing mainly on)

- Cerumol (for removing ear wax)
- Siopel barrier cream
- Zinc and castor oil ointment
- Calamine oily lotion
- Dermovate (topical steroid cream)
- Naseptin cream
- Abidec multivitamin drops – safe as it is refined oil
- Isotretinoin capsules (for treating acne)
- Sustanon (testosterone injection)
- Calogen (high fat calorie supplement)

Paediatric Prescribing - Recap

1. What is the diagnosis ? (Beware of treating symptoms without a diagnosis).
2. Follow guideline if present, is it within your scope of your practice?
3. Is medication indicated/ enough evidence ? Licensed / Unlicensed ?
4. Trial or treatment, are the end points clear?
5. Check interactions/allergies/familial concerns - any contraindications?
6. Will the side effects be tolerated/ Special needs? Any recent media ?
7. What are the alternatives if not tolerated/ supply issues?
8. BNFC – correct dose for indication/wt – double check calc
9. Make prescription – solution/ tablet – can the child swallow?
10. For dilution/solutions explain concentrations to family-visual / written down instructions.
11. Demonstrate use if creams/ inhalers.
12. Health Promotion / Lifestyle modification needed?
3. Address compliance / Medications in school / Transition age
4. If SE yellow card reporting.

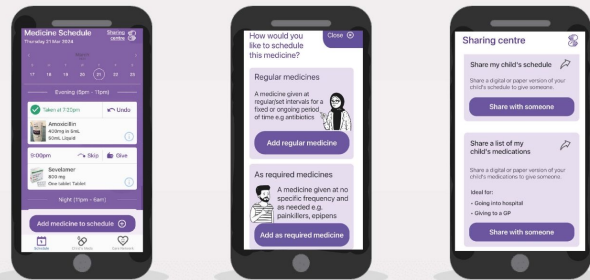
15 case studies

Common Paediatric presentations in Primary care



Medicines management app

Medicines for Children's new app has been tested by healthcare professionals & families, and is nearly ready for release!



Co-produced by WellChild parents

Reduce the burden of managing complex meds regimes

Create MAR charts to share with other carers

Set reminders & record when meds have been given

Securely store & share meds list with images of prescription labels



Look out for...

<https://www.medicinesforchildren.org.uk/news/our-new-medicines-management-app/>



Medicines for Children

information for parents and carers

Use...



Medicines resources for parents and carers

Medicines for Children provides practical and reliable information about more than 120 medicines for children and young people. The information addresses frequently asked questions, such as how and when to give the medicine, what to do if you forget to give the medicine, and any possible side effects. The resources help other useful resources for parents, such as general advice about medicines and how to give different types of medicines, and posters to help you learn more.

4-2 of medicines
Medicines are listed in alphabetical order or can be identified from the search bar using generic or brand name.

How to give medicines
The poster provides advice and advice on giving different medicine formulations.

General information about medicines
The poster provides general advice, such as giving medicines, reacting with medicines, side effects, and the unlicensed use of medicines in children.

QR code posters
We are developing a new series of posters displaying QR codes to give quick access to our medicines information. These posters are available to download and print out for use in clinics and hospital settings and to share with parents. Please contact us if you would like a poster created for a particular therapy area or copies of existing posters with your organisation's branding.

How to use QR codes

- Use the QR code using either your phone camera or a QR scanner app which you can download from an app store.
- Click on the icon or picture beside the numbers, which will take you to the right page on the website.
- You can read the information or download it onto your phone.

Medicines for Children is a program funded by the registered charity, Royal College of Paediatrics and Child Health (RCPCH) charity 1057988, the Paediatric and Pediatric Pharmacology Group (PPG) and Medixia.

Information about medicines for children and young people

Medicines for Children provides practical and reliable information about more than 120 medicines used for children and young people. The information addresses frequently asked questions, such as how and when to give it, what to do if you forget to give the medicine, side effects, and how to give it. It also has many other useful resources and resources.

Medicines
Medicines are listed in alphabetical order or can be identified from the search bar using generic or brand name.

How to give medicines
The poster provides advice and advice on giving different medicine formulations.

General information about medicines
The poster provides general advice about medicines, such as giving medicines, reacting with medicines, side effects, and the use of medicines in children.

QR codes
QR code using either your phone camera or a QR scanner app which you can download from an app store. Click on the icon or picture beside the numbers, which will take you to the right page on the website. You can read the information or download it onto your phone.

Medicines for Children is a program funded by the registered charity, Royal College of Paediatrics and Child Health (RCPCH) charity 1057988, the Paediatric and Pediatric Pharmacology Group (PPG) and Medixia.

<https://www.medicinesforchildren.org.uk/news/medicines-qr-code-posters-update/>

Consider..

Inhalers and the environment

choosing an inhaler which is good for you and good for the planet



The most important thing

When managing your lung condition there are a few different types of inhalers, the main ones are Metered Dose Inhalers (MDI), Soft Mist Inhalers (SMI) and Dry Powder Inhalers (DPI).

When choosing an inhaler your health is ALWAYS the priority, so having an inhaler that works well for you is most important!

What's it got to do with the environment?

MDIs contain propellant gases to help medicine come out of the canister, these gases contribute to climate change. DPIs do not contain propellants. You can find out more on the [green inhaler](#) website.

The equivalent car CO₂e gas emissions of each type of inhaler:



Is a DPI suitable for me?

- Unlike MDIs, DPIs don't require the complex coordination to get the medication into your airways. DPIs only need a fast deep breath to work.
- If you are using an MDI you should be using a spacer as it improves medication delivery. With DPIs, there is no need for a spacer.
- Most DPIs also have a dose counter which shows how many doses remain. This means you're less likely to find that your inhaler is empty in an emergency!
- DPIs might not be suitable for some people including **young children, some elderly patients or those with weak breath.**



There are many different types of DPIs e.g. accuhalers, spiromax

An easy way to help the environment is to return your inhalers to a pharmacy so the greenhouse gases can be safely destroyed or the device can be recycled. Do not



If you are using your reliever inhaler (usually the blue inhaler) **3 or more times a week due to respiratory symptoms such as breathlessness or you are using more than 3 reliever inhalers in a year** then you should **book an appointment** to review your respiratory treatment as your condition could be better controlled. Remember, whatever type you use, checking you can use your inhaler correctly is the best way to help you manage your condition and stay well.

Finally, any changes are always reviewed, so if you don't get on with your new inhaler you can talk to your GP practice about trying another.

Scan the QR code to watch videos showing inhaler technique for all the different types



Landing / Takeoff = Prescribing



Certificate courses

- <https://www.rcpch.ac.uk/resources/paediatric-prescribing-principles-online-learning>
- <https://portal.e-lfh.org.uk/Component/Details/715518>



This is to certify that

Jaikumar Ganapathi

has completed the RCPCH Online Learning module:

Paediatric Prescribing Principles

on

June 26, 2024, 4:03 pm

A handwritten signature in black ink that reads 'Jonathan Darling'.

Dr Jonathan Darling
VP for Education and Professional Development

The most difficult medication to prescribe ?

- Thank you
- Any questions?
- Please don't forget your feedback