Acute severe asthma

This is our practice protocol for acute severe asthma, based on the BTS/SIGN guidance. I thought this was the most helpful way to summarise the management in a practical and useful way. Feel free to photocopy it for your emergency bag or treatment room wall, or to use it as the basis of your practice protocol. There is a lot more on asthma in the Respiratory chapter.

Mill Stream Surgery ACUTE ASTHMA PROTOCOL for ADULTS (2016)

Based on the SIGN/BTS Guidelines (SIGN 2016, 153)

Assess severity

TREAT EVERY ATTENDANCE WITH AN ASTHMA EXACERBATION AS SEVERE ASTHMA UNTIL PROVEN OTHERWISE.

Don't rely on a single sign. Look at the whole picture!

Use percentage predicted of *best* PEFR if available. If not available, use percentage predicted of *predicted* PEFR.

MODERATE ASTHMA	ACUTE SEVERE ASTHMA	LIFE-THREATENING ASTHMA
Peak flow 50–75% best or predicted Sats ≥92% Speech normal RR<25 P<110/min No features of severe asthma	**Peak flow 33–50% best/predicted** Sats ≥92% Can't finish sentence in 1 breath RR ≥25/min P ≥110/min **ADMIT IF ANY FEATURES OF SEVERE ASTHMA REMAIN AFTER INITIAL TREATMENT** NB: people with severe asthma and ≥1 adverse psychosocial factors are at risk of death	**Any one of the following:** **PEFR <33% best/predicted** O_2 sats <92% or cyanosis Feeble respiratory effort/silent chest Hypotension or arrhythmia Exhaustion/altered consciousness **ADMIT IMMEDIATELY**

Management

Oxygen not needed.	**OXYGEN** to keep O_2 sats at 94–98%.
SALBUTAMOL: 4 puffs via spacer, then 2 puffs every 2min. After each puff, take 5 normal (tidal) breaths via spacer. Max. 10 puffs.	**SALBUTAMOL nebulised or via spacer** Via spacer: 4 puffs via spacer, then 2 puffs every 2min. Max. 10 puffs. Nebulised: 5mg nebulised via oxygen **In LIFE THREATENING ASTHMA:** **Use oxygen driven nebulised SALBUTAMOL WITH IPRATROPIUM.** Salbutamol: 5mg Ipratropium: 0.5mg
Oral PREDNISOLONE 40–50mg for at least 5d or until recovery.	**Oral PREDNISOLONE** 40–50mg for at least 5d *or* **HYDROCORTISONE** 100mg iv
ANTIBIOTICS: only if evidence of infection.	**ANTIBIOTICS:** only if evidence of infection.

Admission?

Have a lower threshold for admission if:

- Afternoon/evening attack.
- Recent nocturnal symptoms or recent hospital admission.
- Patient unable to assess own symptoms/condition, or concern over social situation.

If admitting: stay until ambulance arrives. Ensure written handover. Repeat nebulisers via oxygen in ambulance.

MODERATE ASTHMA:	ACUTE SEVERE ASTHMA:	LIFE-THREATENING ASTHMA:
Most can go home if improving. **Review drugs: is it time to step up?** Admit if history of near-fatal asthma.	Consider admission depending on response to treatment. **Admit if features of severe asthma persist after initial treatment.**	**Arrange immediate admission.**

After an admission

SIGN/BTS say primary care should be notified within 24h of discharge from A&E or hospital(!).

Primary care follow-up within 2 working days of discharge. At review:

- Check symptoms and peak flow, inhaler technique and understanding of inhalers.
- Step up regular therapy if needed.
- Ensure patient has a written PAAP, AND KNOWS HOW TO USE IT.
- Address potentially preventable contributors to admission.

GPU_Autumn2017

Mill Stream Surgery ACUTE ASTHMA PROTOCOL for CHILDREN (2016)

Based on the SIGN/BTS Guidelines (SIGN 2016, 153)

Assess severity

Assess severity

If signs and symptoms are scattered across severity criteria, treat according to the most severe symptom.

WARNING: some children with severe asthma do not look distressed, and some clinical signs may be normal

MODERATE ASTHMA		ACUTE SEVERE ASTHMA		LIFE-THREATENING ASTHMA
O_2 sats ≥92% Talking normally **Peak flow ≥50% best or predicted**		O_2 sats <92% Can't finish sentence in 1 breath or too breathless to talk or feed Using accessory muscles (feel and look) **Peak flow 33–50% best or predicted**		O_2 sats <92% **plus any of:** Cyanosis Feeble respiratory effort/silent chest Exhaustion Agitation/confusion **PEFR <33% best or predicted**
2–5y	**>5y**	**2–5y**	**>5y**	
RR ≤40	RR ≤30	RR >40	RR >30	
P ≤140	P ≤125	P >140	P >125	

Management

Always nebulise children with oxygen (risk of hypoxia otherwise).

No nebuliser machine? Plug tube from nebuliser 'pot' into oxygen cylinder and turn up the flow (usually to above 6L/min)!

Oxygen not needed. **SALBUTAMOL via SPACER** **2–5y: use spacer & face mask** **>5y: use spacer & mouthpiece** 1 puff every 30–60sec. After each puff, take 5 normal (tidal) breaths via spacer. Max. 10 puffs. **Consider oral PREDNISOLONE**: Aged 2–5y: 20mg for 3d Aged >5y: 30–40mg for 3d **ANTIBIOTICS:** only if evidence of infection.	**OXYGEN** to keep O_2 sats at 94–98%. **SALBUTAMOL via spacer/nebuliser** **Via spacer:** 1 puff every 30–60sec. After each puff, take 5 normal (tidal) breaths via spacer. Max. 10 puffs. **Nebulised salbutamol:** Aged 2–5y: 2.5mg salbutamol Aged >5y: 5mg salbutamol **Give oral PREDNISOLONE**: Aged 2–5y: 20mg for 3d Aged >5y: 30–40mg for 3d **ANTIBIOTICS:** only if evidence of infection.	**OXYGEN** to keep O_2 sats at 94–98%. **SALBUTAMOL AND IPRATROPIUM** Nebulise together every 20min: Aged 2–5y: 2.5mg salbutamol Aged >5y: 5mg salbutamol **Ipratropium** 0.25mg for all ages **Give oral PREDNISOLONE**: Aged 2–5y: 20mg for 3d Aged >5y: 30–40mg for 3d *or* iv **HYDROCORTISONE if vomiting** Aged 2–5y: 50mg iv Aged >5y: 100mg iv **ANTIBIOTICS:** only if evidence of infection.

Admission?

MODERATE ASTHMA and ACUTE SEVERE ASTHMA:	LIFE-THREATENING ASTHMA:
Assess response to treatment after 15min: **If poor response, ADMIT:** stay with patient until ambulance arrives. Ensure written handover. Repeat nebulisers via oxygen in ambulance. **If good response to treatment, may go home.** Continue salbutamol as needed, but not more than every 4h (if needed more often than this, seek help). Arrange review within 48h. Have a lower threshold for admission if: • Late afternoon/evening attack. • Recent hospital admission or previous admission with severe attack. • Concern over social situation/ability to cope.	**Arrange immediate admission.** Stay with patient until ambulance arrives. Ensure written handover. Repeat nebulisers via oxygen in ambulance.

After an admission

Follow up in primary care within 2 working days of discharge. Follow up in paediatric clinic within 1–2m.

Refer to paediatric respiratory specialist if life-threatening features. Consider referral if 2 attacks within 12m.

At review:

- Check symptoms, peak flow, inhaler technique and understanding of inhalers.
- Ensure patient/parent has a written PAAP, AND KNOWS HOW TO USE IT.
- Address potentially preventable contributors to admission.

GPU_Autumn2017

Acute severe asthma

- What is in your practice emergency bag? Would it help you manage acute severe asthma? In particular, do you have a peak flow meter and oxygen saturation probe? And the relevant drugs?

If you find this helpful, why not use it to update your own practice protocol?
If you have seen someone recently with acute asthma, how did your care compare with this practice protocol?

OUR 2019 COURSES

Red Whale

One day updates for GPs and all Primary Care Clinicians.

Keeping on top of every change to guidelines and the latest research can be a challenge. But we do all that legwork for you and jam-pack our one-day courses full of brand new updates to change your practice straightaway. Check our autumn dates on **gp-update.co.uk** for our most popular courses:

The GP Update Course (RCGP accredited)
The Cancer Update Course
The Women's Health Update Course
The MSK & Chronic Pain Update Course
Lead. Manage. Thrive!
Consultation Courses

And with every course you get online access to:

500 searchable & referenced articles

97% coverage of RCGP primary care curriculum

100s of FREE learning activities to earn CPD credits

FREE for 12 months!

NOVEMBER 2019

26	Tuesday	The MSK and Chronic Pain Update Course
27	Wednesday	The Cancer Update Course or The Lead. Manage. Thrive! Course
28	Thursday	The GP Update Course
29	Friday	The Women's Health Update Course
30	Saturday	The Telephone Consultation Course

Roadshow 2019: Durham

Perfect for anyone looking for an excuse to visit beautiful historic Durham and join us at a gorgeous spa hotel (and why not?), or anyone who wants to get their CPD in one great big hit (we're all about efficiency)! Choose up to five courses and get £90 off if you book four!

DURHAM ROADSHOW

Red Whale

Catch us at the Ramside Hotel & Spa and enjoy a little bit of luxury.

NEW

Red Whale

Deep Dives
WEBINAR SERIES

Join us while we dive deep into those trickier areas of primary care – answering your conundrums and helping you change your practice. Catch our Deep Dives webinars live every month, or watch on demand afterwards – whenever it suits you!

What?

Red Whale Deep Dives are monthly webinars, created to support the educational needs of busy primary care practitioners. They're designed to be a little bit different – capturing the magic of a face-to-face course, and transferring it to the small screen.

Red Whale Deep Dives are split into bite-sized learning chunks – so you can choose to watch the whole hour in one go, or just one short segment at a time. Watch them at a time which suits you – when you can relax and learn at your best – preferably with your feet up and a cuppa in hand, or a cheeky G&T!

Why?

A lot happens in a year, and some subjects are better suited to a deeper exploration than we can offer on our action and information packed one-day Update courses.

The Red Whale team is always uncovering answers to niggly primary care conundrums, PUNS and DENS if you like – and we want to share them with you!

Sometimes you need a bit of inspiration to find those extra CPD points to complete your appraisal. Or you just need a bit more Red Whale in your life!

www.gp-update.co.uk/deepdives

Deep Dives
WEBINAR SERIES

Red Whale

Red Whale Deep Dives give you:

- A chance to take a 'deep dive' into important, difficult or controversial topics in more detail.
- At least 3 'microlearning segments' per webinar – or Quick Dips as we like to call them – perfect for fitting into your busy daily routine.
- Cases, quizzes and polls to test your knowledge.
- Great resources to download and use back at the surgery the next day.
- The most relevant information for primary care, delivered by the Red Whale team.

How it works

- You choose which webinars you want access to and buy them online.
- Each webinar lasts one hour and you can either watch them live on the dates and times shown or on demand.
- You'll also have access to lots of useful resources to download and use straightaway in your practice!
- Get each webinar at an introductory discounted price of **£20 per webinar** (normally £25!).

Where do I sign up?

Visit **gp-update.co.uk/deepdives** to find out more about each webinar and sign up. After purchase, watch on-demand webinars straight away and get reminder emails for your upcoming live webinars.

What's on in 2019?

AVAILABLE ON DEMAND NOW!
Inflammatory bowel disease: it's all diarrhoea isn't it?

AVAILABLE ON DEMAND NOW!
The menopause laid bare

AVAILABLE ON DEMAND NOW!
Anxiety: a Cinderella condition?

AVAILABLE ON DEMAND NOW!
Diabetes in remission: a story of hope?

LIVE 22 October 8pm
Contraception laid bare

LIVE 14 November 8pm
Emergencies in primary care

LIVE 12 December 8pm
The best of 2019: our top 10 practice-changing points

www.gp-update.co.uk/deepdives