



# **Devon LPC Medicines Use Review Resource Pack II**

## **Hints and Tips for successful MURs**

**Devon LPC acknowledges the work undertaken by Emma Mortimer in compiling this resource and information provided by Hampshire and IOW LPC.**

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# Asthma

## **Patient recruitment**

All patients who regularly use inhalers may benefit from review

However patients who may particularly benefit include:-

- Those referred by another health care professional
- Patients over using inhalers, in particular “relievers”
- Patients declining dispensing of “preventer” inhalers
- Patients asking about inhaler technique, use of spacers and peak flow devices
- Patients changing formulations, inhaler types
- Patients requesting emergency supplies
- Patients returning unopened inhalers

## **Practical hints and tips to check**

- √ Patient’s knowledge and understanding of why they are taking each of their medications
- √ Compliance (does this match the PMR record?)
- √ Technique in using inhalers e.g. Using the Incheck® device
- √ Does the patient know how to tell if the inhaler is nearly empty?
- √ Are the quantities supplied on the Rx approximately synchronised.
- √ Are there adequate instructions on the labels?
- √ Is the patient experiencing any side effects?
- √ Does the patient regularly use OTC medication
- √ Would the patient benefit from and know how to use a spacer
- √ Would the patient benefit from and know how to use peak flow meter.
- √ Generic prescribing can lead to a choice of devices- know what inhaler type your patient requires and mark on the PMR.
- √ Theophylline drugs are not bio-equivalent – patient requires consistent brand of medication
- √ Smoking status - essential to find out and offer appropriate advice within pharmacy or signpost to local NHS service.

## **Brief points of related information**

- **Reliever inhalers** work very quickly and have duration of action is 3-5 hours. Should not be used on a regular basis but as “when needed” medication. Patient should have guidance on dose and frequency of use and this should be stated on the label.
- **Corticosteroids inhalers** reduce inflammation of the airways. They must be used regularly for maximum benefit. Alleviation of symptoms will take 3 to 7 days after initiation. Higher doses can induce adrenal suppression and all patients on higher doses should have a ‘steroid card’. Candidiasis can be reduced by using a spacer; rinsing the mouth after use (or cleaning teeth) may also be helpful. If using the corticosteroid inhaler causes coughing then using the beta-2 agonist first may help.
- **Haleraid®** is a useful device for those with poor or weak hand control to use with GSK mdi devices
- **Spacer device** should be cleansed once a month by washing in a mild detergent rinsed and allowed to dry in air without wiping with a cloth. Patients should inhale from the device as soon as possible after actuation and a single dose actuation is recommended. Spacer devices should be replaced every 6-12 months.

- **Peak Flow meters** can give a guide as to how well symptoms are under control.  
Generally readings will be consistent from day to day if symptoms are well controlled  
Useful in detecting deteriorating symptoms of asthma  
Peak flow diaries are available for free to pharmacists from NHS stationary stores
- **OTC medicines** – Approximately 1 in 20 people are sensitive to aspirin and other NSAIDs and these medications should not be taken without GP supervision

• **Key questions to ask about symptoms**

- Have you had difficulty sleeping because of your asthma symptoms?
  - Has your asthma interfered with your usual activities like housework, work or school?
  - Have you had your usual asthma symptoms during the day? *(3 key questions – RCPHysicians)*
- Answering yes to any of the above indicates symptoms not under control. Signpost to GP practice for medication review – beyond scope of MUR

**Lifestyle Advice**

Smoking Cessation (see below)

Triggers for asthma vary from person to person. Most frequently cited are;-

- Smoke
- House dust mite
- Pets (with hair)
- Air pollution
- Viral infections – colds
- Exercise – especially in cold temperatures

The asthma UK web site provides some excellent tips for avoiding triggers.

Patients should be cautious in spending significant sums of money (e.g. vacuum cleaners, special bedding and redecorating of bedrooms) unless they know they will benefit from the change.

Breast feeding of babies/infants has shown reduction in incidence of asthma

**Signposting**

GP/Asthma nurse;-

- If symptoms are poorly controlled or
- If not had an asthma review in last 15 months (QoF)

Asthma UK web site [www.asthma.org.uk](http://www.asthma.org.uk)

Local Organisations for asthma and/or Long term conditions

Devon/Torbay/Plymouth PCT smoking cessation services:

Exeter	01392 207462	East Devon	01395 282065
Mid Devon	01884 23444	Teignbridge	01626 357039
Plymouth	0845 1558080	Torbay	01803 299160
North Devon	01769 575115		

For more information go to [www.gosmokefree.co.uk/localservicesearch.aspx](http://www.gosmokefree.co.uk/localservicesearch.aspx) or call the NHS smoking helpline on 0800 1690169

**Further Resources**

1. SIGN guidance – both the full and quick reference guidance can be downloaded at [www.sign.ac.uk/pdf/qrg63.pdf](http://www.sign.ac.uk/pdf/qrg63.pdf) and is an extremely useful document for all pharmacists to read, who have involvement with asthmatic patients.
2. Royal Pharmaceutical Society practice guidance on Asthma and COPD.  
<http://www.rpsgb.org/pdfs/asthmaguid.pdf>

# **Chronic Obstructive Pulmonary Disease**

## **Patient recruitment**

All patients who regularly use inhalers may benefit from review

### **However patients who may particularly benefit include;-**

- Those referred by another health care professional
- Patients over using inhalers, in particular “relievers”
- Patients declining dispensing of “preventer” inhalers
- Patients asking about inhaler technique, use of spacers and peak flow devices
- Patients changing formulations, inhaler types
- Patients returning unopened inhalers

### **Practical hints and tips to check**

- √ Patient’s knowledge and understanding of why they are taking each of their medications
- √ Compliance (does this match the PMR record?)
- √ Technique in using inhalers e.g. Using the Incheck® device
- √ Does the patient know how to tell if the inhaler is nearly empty?
- √ Are the quantities supplied on the Rx approximately synchronised.
- √ Are there adequate instructions on the labels?
- √ Is the patient experiencing any side effects?
- √ Does the patient regularly use OTC medication
- √ Generic prescribing can lead to a choice of devices- know what inhaler type your patient requires and mark on the PMR.
- √ Theophylline drugs are not bio-equivalent – patient requires consistent brand of medication
- √ **Smoking status - essential to find out and offer appropriate advice within pharmacy or signpost to local NHS service.**

### **Brief Points of related information**

- Short-acting bronchodilator - beta2-agonist is used when required e.g. Salbutamol, Terbutaline or anticholinergic ie. Ipratropium more commonly used regularly three-four times a day as increased cholinergic tone of the airways is thought to be beneficial in COPD.
- Combination of a short-acting beta2-agonist with a short-acting anticholinergic as either individual inhalers or combined e.g. Combivent. Usually used regularly three- to four times a day.
- Long acting bronchodilator (beta2-agonist or anticholinergic) e.g. Eformoterol, Salmeterol or Tiotropium,
- In moderate or severe COPD: if still symptomatic a combination of a long-acting beta2-agonist and inhaled corticosteroid is often tried either as individual inhalers or in combination formulations e.g. Seretide or Symbicort
- Theophylline may also be added to the therapy.
- Oral steroids may be used for severe exacerbations
- Mucolytics e.g. Carbocysteine and Mucysteine reduce symptoms of productive cough by reducing the viscosity of sputum and enabling easier sputum clearance.
- Nebuliser systems are not available on prescription. Patients should not consider purchasing or using a nebuliser without the agreement of their GP or COPD specialist. Generally nebulisers are no more effective than a spacer device + MDI. They require regular servicing, maintenance and replacement of disposables such as nebuliser chambers, tubing, mouthpieces and masks. The nebuliser supplier is responsible for help with maintenance and use. (RPSGB Guidance gives fuller details)

- Oxygen may be used to support patient with severe COPD. This is generally initiated by specialist service. Oxygen supplies are now provided new national arrangements rather than by local community pharmacy. (RPSGB Guidance gives fuller details)

### Concordance tips + issues

- ☞ Drug treatments are given to relieve symptoms and improve quality of life but they will not reverse the underlying lung damage.
- ☞ Check inhaler technique. The elderly in particular may have problems with dexterity in handling inhalers and inspiration of medicine
- ☞ Advice on benefit and use of spacer devices where appropriate
- ☞ Oxygen service – questions about this service e.g. holiday arrangements, replacement masks + tubing should be directed to local service provider.
- ☞ Theophyllines should be prescribed by brand name due to variance in bioavailability.
- ☞ Patients on oral steroids or high dose inhaled steroids to be given steroid warning card. Long-term use indicates a greater risk of osteoporosis.
- ☞ Patients who live on their own may need to access pharmacy delivery service, if it's available, when their exacerbations are bad.

### Lifestyle Advice

Smoking – all patients should be offered advice and support for quitting smoking when ever possible. It is the only intervention that will alter the progression of COPD.

Annual flu vaccination is recommended

Pneumococcal vaccination is recommended every 5-10 years. General healthy lifestyle advice e.g. to keep mobile, moderate exercise and eating well balanced diet will help with general well-being.

Environmental Factors – know what types of weather will bring on an exacerbation and how to be prepared (see resources below)

### Signposting

- ☞ British Lung Foundation [www.lunguk.org/copd.asp](http://www.lunguk.org/copd.asp)
- ☞ British Thoracic Society [www.brit-thoracic.org.uk](http://www.brit-thoracic.org.uk)
- ☞ A review of their treatment should be provided by their GP practice every year.

The GP should also help with self –management plan, with particular emphasis on recognising and managing worsening symptoms or exacerbations.

- ☞ Pulmonary Rehabilitation is a service offered in some NHS areas for moderate/severe sufferers. This multidisciplinary service aims to improve self-management of COPD – referral by GP is usual access pathway.
- ☞ Devon/Torbay/Plymouth PCT smoking cessation services:
 

Exeter	01392 207462	East Devon	01395 282065
Mid Devon	01884 23444	Teignbridge	01626 357039
Plymouth	0845 1558080	Torbay	01803 299160
North Devon	01769 575115		

For more information go to [www.qosmokefree.co.uk/localservicesearch.aspx](http://www.qosmokefree.co.uk/localservicesearch.aspx) or call the NHS smoking helpline on 0800 1690169

### Further resources;

NICE guidance for COPD [www.nice.org.uk/page.aspx?o=104441](http://www.nice.org.uk/page.aspx?o=104441)

RPSGB Practice Guidance on the Care of People with Asthma and Chronic Obstructive Pulmonary Disease [www.rpsgb.org/pdfs/asthmaguid.pdf](http://www.rpsgb.org/pdfs/asthmaguid.pdf)

MeRec Bulletin -The management of COPD

[www.npc.co.uk/MeReC\\_Bulletins/2006Volumes/Vol16\\_No5.pdf](http://www.npc.co.uk/MeReC_Bulletins/2006Volumes/Vol16_No5.pdf)

Met Office guide to seasonal variations affecting COPD -

[www.metoffice.gov.uk/health/features/copd/Seasonal\\_variation\\_in\\_COPD.pdf](http://www.metoffice.gov.uk/health/features/copd/Seasonal_variation_in_COPD.pdf)

# Depression

## Medication Issues

- SSRI antidepressants recommended as first line therapy. Patient should be monitored for akathisia, anxiety, agitation and suicidal ideation in early treatment- refer to GP if observed/ reported (This is particularly important in young people under the age of 30)
- Check therapeutic doses are being utilised:

Antidepressant	Recognised minimum effective dose for treatment of depression (Dose/ 24hours)	Antidepressant	Recognised minimum effective dose for treatment of depression (Dose/ 24hours)
TCAs	At least 75-100mg possibly 125-150mg	Escitalopram	10mg
Lofepramine	140mg	Fluvoxamine	50mg
Citalopram	20mg	Duloxetine	60mg
Fluoxetine	20mg	Mirtazapine	30mg
Paroxetine	20mg	Moclobemide	300mg
Sertraline	50mg	Reboxetine	8mg
		Trazodone	150mg
		Venlafaxine	75mg

- Poor response to treatment medication may need to review. If depressive symptoms remain completely unchanged after 4 weeks of therapeutic dosing an alternative drug should be tried. If minimal improvement observed in first 4 weeks continue for a further 2 weeks and change to a different drug if no further response in this time (NB response may be slower in elderly patients or in patients with chronic depression - may take 6-8 weeks before response to treatment can be fully assessed).
- Identify side effects (see 'concordance' below). If side effects intolerable, antidepressant therapy should be reviewed and switched to an alternative antidepressant where appropriate. Refer back to GP.
- Advise patients re: driving. Patients prescribed TCAs more likely to have RTAs as reaction times may be reduced even if they don't feel tired.
- Identify drug interactions e.g.
  - Remember to include OTC or herbal preparations e.g. St John's Wort.
  - Caution with SSRI & NSAID combination in over 80s/history of GI bleed/taking aspirin or combination of NSAIDs - refer to GP if indigestion/ GI symptoms
  - If patient also taking Warfarin Citalopram recommended.
- Avoid sedating TCAs in patients at risk of falls. TCAs can also cause postural hypotension.
- Hyponatraemia (dizziness, confusion, cramps) can be caused by all anti-depressants and is common in the elderly so monitoring maybe required. See BNF for CSM guidance.
- Post-stroke depression common problem observed in 30-40% survivors of intracerebral haemorrhage. SSRIs and Nortriptyline most widely recommended for post-stroke depression.
- Lithium patients – issue warning cards, establish interactions especially NSAIDs (including OTC meds), ensure compliance with branded prescribing and plasma monitoring 3 monthly.
- Ensure patient aware of side effects indicating possible toxicity and what action to take and the importance of maintaining an adequate fluid balance and dangers of sodium depletion resulting from vomiting/ diarrhoea etc.
- Combinations of antidepressant drugs NOT recommended although may be prescribed in exceptional circumstances for treatment resistant depression. Should be initiated by or on the advice from a specialist.

## Concordance

Research shows that up to 70% of patients may be non-concordant to anti-depressant medications. The following advice may assist with reassuring patients, giving realistic expectations and therefore increasing concordance.

- Antidepressants may take up to 4-6 weeks to work, so if no beneficial effect seen after just a few weeks, encourage patients to persevere with treatment.
- If patient feels worse, or get suicidal thoughts, refer immediately to GP/CMHT
- Ensure patient knows that for a single depressive episode they should continue to take the same dose of the prescribed antidepressant for at least 6 months after complete resolution of symptoms and they shouldn't stop just because they feel better. Reinforce this to patient for realistic expectation. Relapse rates as high as 50% have been reported if treatment is discontinued too early.
- Elderly patients or patients who have experienced recurrent depressive episodes may benefit from a longer duration of treatment i.e. 1-2 years. Patients should be advised to discuss this with their GP (or psychiatrist).
- Reassure patient that anti-depressants aren't addictive. This is paramount as a survey of 2000 people in the UK found that 78% thought antidepressants were addictive.
- Reinforce that medication should be taken every day and not stopped or reduced without discussing with GP. If dose of antidepressant or lithium is missed ensure patient knows not to double up the next dose.
- Side effects – encourage patient to explain any side effects they experience. If the medication is new, explain what the most likely ones are and how to avoid them.
  - Nausea and sleep disturbance/insomnia with SSRI's and related drugs – take in the morning, after breakfast
  - Drowsiness with sedating TCA's – take at night. If drowsiness continues to be a problem, switch to Lofepramine if appropriate.
  - Dry mouth – drink plenty of water and chew sugar free gum
  - Blurred vision – be aware that close up vision can be affected – see GP/Optician if this is significant.
  - Urinary retention – if it takes over 5 mins to pass water, contact GP
  - Constipation – Advise to increase fibre and water intake, exercise and if necessary recommend a bulk producing laxative.
  - Diarrhoea (SSRIs)- usually self-limiting- refer if severe or problematic
  - Weight gain with i.e. with TCAs, mirtazapine weight management advice, (including tips like drinking water rather than sugary drinks to help with dry mouth).
  - Sexual dysfunction – i.e. decreased libido, erectile dysfunction, delayed orgasm, impaired ejaculation. Priapism may also occur. Common and a major reason for stopping treatment
- If non-concordance is non intentional, discuss options of compliance support e.g. reminder chart/supply of a weekly self fill box.

## Stopping treatment/ missed doses and discontinuation reactions

- When treatment is stopped the dose should be slowly reduced and stopped over a minimum of 4 weeks. Fluoxetine is an exception to this because of the long half life of the drug and metabolite.
- Discontinuation reaction may occur shortly after stopping, reducing or missing a dose. Onset usually within 5 days but usually mild, short-lived and self-limiting. Reassure patient that these symptoms are not uncommon after and will pass in a few days or when treatment is recommenced. If symptoms severe or prolonged refer to GP

## **Lifestyle**

### Eating

Have a healthy diet and be a healthy weight - for good mood foods, try [www.foodandmood.org](http://www.foodandmood.org)

### Drinking

Try to drink 7-8 glasses of water or caffeine-free drinks a day.

Avoid excess caffeine intake

Limit alcohol intake. Alcohol interacts with medication and is a depressant. Best to avoid alcohol completely when first starting treatment, then only drink in moderation after this if at all. Do not miss doses of medication in order to have an alcoholic drink.

Smoking Cessation - encourage attendance at a local smoking cessation service

### Activities:

NB people with depression can lose interest/ enjoyment in activities/hobbies they usually enjoy. Encourage patients to re-start these activities if they have stopped them and reassure them that their motivation, interest and enjoyment will return as their depressive illness improves.

- Exercise – has an instant positive effect, reduces stress, encourages healthy sleeping and is a good way of meeting people. Some surgeries participate in 'Exercise on prescription'.
- Relaxation – locate local classes for relaxation and stress control
- Reading – A fulfilling hobby and also a wealth of self-help books
- Hobbies, art & crafts, adult learning. Find out what's available from local community/ adult education centres

## **Signposting**

- Get to know your local community mental health teams e.g. Crisis Resolution services, Assertive Outreach teams, mental health leads in GP surgeries (e.g. CPN, postgraduate mental health workers etc) and Specialist Mental Health Services Pharmacists working in secondary care.

Establish how to refer and when it is appropriate to contact team members. All referrals for assessment should be via the patient's GP,

- MIND
- Local groups
- Cognitive Behavioural Therapy (CBT) - available via GP or online at [www.moodgym.anu.edu.au](http://www.moodgym.anu.edu.au)

A full list of links for mental health can be found at [www.ukppg.org.uk/links.htm](http://www.ukppg.org.uk/links.htm)

## **Resources**

PILs 'Beating depression – Get well, stay well' and other PILs

Prodigy

(Exeter only: Devon PCT 'Because Your Mind's Worth It')

The United Kingdom Psychiatric Pharmacy Group - [www.ukppg.org.uk](http://www.ukppg.org.uk)

'Positive Steps' is a nurse-led programme for patients on Venlafaxine, but it has some good resources pharmacists can use – 0800 3457993

# **Diabetes Type 1**

## **Patient Recruitment**

All diabetic patients may benefit from review, however patients who may particularly benefit include:-

- Those referred by another health care professional
- Patients changing insulins or diabetic equipment
- Patients returning unused medication
- Patients buying/using soluble OTC medicines
- Patients with uncontrolled diabetes
- Patients with problems ordering medication.

## **Practical tips and Advice**

- Confirm insulin type(s) and dose regime as per MUR form. Update PMR
- Confirm type of injecting device used and compatibility with needles etc.
- Reinforce single use
- Clarify sharps disposal procedure
- Self-testing of blood glucose – clarify frequency with local guidelines e.g. usually not needed more than four times a day unless illness, pregnancy etc Check PMR for this.
  - ☞ Check machine is working and is appropriate for patient.
  - ☞ Check compatibility of strips/lancets
  - ☞ Update PMR
  - ☞ Knowledge of blood readings
  - ☞ Poor glycaemic control may be indicated in general health e.g. thrush

## **Diagnostics/screening**

Ask if patient has seen diabetic nurse within the last 12 months

- Hba1c
  - To be measured at 2 to 6 month intervals depending on level of control.
  - Treatment should aim to achieve 6.5 – 7.5%
- Blood pressure. Target <130/80mmHg
- Cholesterol Target <5mmol/l (local guidelines may vary)
- Protein urine test annually. Positive results require addition of an ACEI.
- Annual eye test and regular footcare
- Asking about general health can indicate poor glycaemic control e.g. recurrent thrush, or other complications e.g. erectile dysfunction

## **Medication Issues**

- Is patient on aspirin?
- Is an ACEI required?

## **Lifestyle Advice**

- Diet - eat regularly, limit sucrose intake, increase fibre, and reduce fat and salt, 5 fruit/vegetables a day, inclusion of fish.
- Weight management
- Exercise recommendations e.g. daily walking, cycling or swimming
- Smoking cessation
- Alcohol advice
- Carry sugary snack

## Signposting

- Local Council for disposal of sharps:

<a href="#">East Devon</a>	01395 517528	<a href="#">Exeter City</a>	01392 665010
<a href="#">Mid Devon</a>	01884 255255	<a href="#">West Devon</a>	01822 813600
<a href="#">Teignbridge</a>	01626 215838	<a href="#">Torridge</a>	01237 428734
<a href="#">North Devon</a>	01271 374776	<a href="#">South Hams</a>	01803 861234
<a href="#">Plymouth</a>	01752 304750	<a href="#">Torbay</a>	01803 402934

- Diabetes UK - [www.diabetes.org.uk](http://www.diabetes.org.uk)
- Devon Diabetes - [www.rdehospital.nhs.uk/diabetes/handbook.htm](http://www.rdehospital.nhs.uk/diabetes/handbook.htm)
- Smoking cessation - Devon/Torbay/Plymouth PCT smoking cessation services:

Exeter	01392 207462	East Devon	01395 282065
Mid Devon	01884 23444	Teignbridge	01626 357039
Plymouth	0845 1558080	Torbay	01803 299160
North Devon	01769 575115		

For more information go to [www.gosmokefree.co.uk/localservicesearch.aspx](http://www.gosmokefree.co.uk/localservicesearch.aspx) or call the NHS smoking helpline on 0800 1690169

- Local project details can be found on the following websites:**
  - Devon PCT – [www.devonpct.nhs.uk](http://www.devonpct.nhs.uk)
  - Plymouth tPCT – [www.plymouth-pct.nhs.uk](http://www.plymouth-pct.nhs.uk)
  - Torbay Care Trust - [www.torbaycaretrust.nhs.uk](http://www.torbaycaretrust.nhs.uk)
  - Walking your way to Health - [www.whi.org.uk](http://www.whi.org.uk)

## Patient Advice

- Prodigy information (various)  
[www.prodigy.nhs.uk/diabetes\\_type\\_2\\_blood\\_glucose\\_management](http://www.prodigy.nhs.uk/diabetes_type_2_blood_glucose_management)
- Diabetes UK leaflet 'Understanding Diabetes' (see above)
- Blood testing advice leaflet (local)

It is always good practice to liaise with local specialists to discuss consistent approaches e.g. diabetic teams, in hospital and community settings

## Further Resource

SIGN Guidance 55 – The management of Diabetes: [www.sign.ac.uk/guidelines/fulltext/55/index.html](http://www.sign.ac.uk/guidelines/fulltext/55/index.html)

Diabetes CPPE pack. Available from [www.cppe.manchester.ac.uk](http://www.cppe.manchester.ac.uk)

# **Diabetes Type 2**

## **Medication Issues**

- Sulphonylurea side effects include hypos, weight gain and GI disturbances. Long acting sulphonylureas e.g. glibenclamide associated with greater risk of hypos; avoid in elderly and use gliclazide/tolbutamide instead.
- Biguanides e.g. metformin are 1<sup>st</sup> line oral antidiabetic in obese patients. Common GI disturbances but lower incidence of hypos and weight gain, so good for elderly. Avoid in renal/hepatic failure. Take with or after food
- Glitazones are contraindicated in heart failure
- Is patient on aspirin?
- Is an ACEI required?

## **Concordance**

- Confirm medication regime according to MUR form
- Ensure compliance with tabs
- Take metformin with or after food, prandial glucose regulators e.g. repaglinide need to be taken shortly before main meals and acarbose swallowed whole immediately before food (or chewed with first mouthful)
- Glitazones take at same time each day.
- If using insulin, please see concordance tips for diabetes Type 1
- Check for side effects

## **Diagnostics/screening:**

Ask if patient has seen diabetic nurse within the last 12 months

- Hba1c
  - To be measured at 2 to 6 month intervals depending on level of control.
  - Treatment should aim to achieve 6.5 – 7.5%
- Blood pressure. Target <130/80mmHg
- Cholesterol Target <5mmol/l (local guidelines may vary)
- Self-testing of blood glucose – clarify frequency with local guidelines Check PMR for this.  
Check machine is working and is appropriate for patient.  
Check compatibility of strips/lancets  
Update PMR  
Knowledge of blood readings
- Protein urine test annually. Positive results require addition of an ACEI.
- Annual eye test and regular footcare
- Asking about general health can indicate poor glycaemic control e.g. recurrent thrush, or other complications e.g. erectile dysfunction

## **Lifestyle Advice**

- Diet - eat regularly, limit sucrose intake, increase fibre, and reduce fat and salt, 5 fruit/veg a day, inclusion of fish.
- Weight management
- Exercise recommendations e.g. daily walking, cycling or swimming
- Smoking cessation
- Alcohol advice
- Carry sugary snack

## **Signposting**

- Local council tel. number for sharps disposal
- Diabetes UK - [www.diabetes.org.uk](http://www.diabetes.org.uk)
- Devon Diabetes - [www.rdehospital.nhs.uk/diabetes/handbook.htm](http://www.rdehospital.nhs.uk/diabetes/handbook.htm)
- Smoking cessation

## **Patient Advice.**

- Prodigy information (various)  
[www.prodigy.nhs.uk/diabetes\\_type\\_2\\_blood\\_glucose\\_management](http://www.prodigy.nhs.uk/diabetes_type_2_blood_glucose_management)
- Diabetes UK leaflet 'Understanding Diabetes' (see above)
- Blood testing advice leaflet (local)

## **Reminder about Sick day rules**

When patients with diabetes feel unwell there are particular steps they should follow to avoid their diabetes getting out of control

- being prepared - have the right equipment and information to hand
- testing urine or blood more often - about four times a day or more if necessary
- testing urine for ketones if they are Type 1, or Type 2 requiring insulin
- Remind patients never to stop taking insulin or tablets when feeling ill. In fact in some cases the dose may need to be increased. Stress the need to speak with the diabetes care team regarding dose adjustments
- Drinking plenty of liquids
- Replacing normal meals with carbohydrate containing drinks and if necessary contacting the GP or diabetes team if the patient is in anyway unsure about what to do, and especially if being violently sick.

It is always good practice to liaise with local specialists to discuss consistent approaches e.g. diabetic teams, in hospital and community settings

# Dyspepsia

## **Patient Recruitment**

All patients who use antacids or ulcer healing medication may benefit from review  
However patients who may particularly benefit include:-

- Those referred by another health care professional
- Patients using high dose PPIs long-term
- Patients returning unused medication
- Patients buying/using OTC antacids on a regular basis
- Patients using long term NSAIDs or other drugs with cause dyspepsia e.g. corticosteroids

## **Medication issues**

- Use local formulary to familiarise yourself with the first line alginates, H2 antagonists and PPIs
  - Confirm doses of medication and ensure they are therapeutic – see NICE guidelines.
  - H2 antagonists – If cimetidine is being used, check for drug interactions e.g. anti-arrhythmics, anticoagulants, antiepileptics, ciclosporin, theophylline etc (see BNF). Switch to ranitidine if appropriate
  - PPIs – It is estimated that 25-50% of all PPI prescriptions are inappropriate:
    - ☞ Ensure correct dosing and formulation, including PRN use
    - ☞ Is treatment with as PPI still required?
    - ☞ If patients are on dispersible preparations, check this is clinically necessary
    - ☞ If patients are on 40mg OD omeprazole, consider a switch to 2 x 20mg OD
    - ☞ If patient has been on a high dose PPI for more than 6 weeks, suggest a GP review.
  - Avoid use of acid protectors and Coxibs
- The above points have large cost saving implications. Please check that you are working in line with your prescribing advisors and surgeries

- Ensure symptoms are being controlled – refer to GP if not
- Alginates/antacids – be aware of drug interactions e.g. with e/c preparations or antibiotics
- Establish NSAID use.
  - ☞ Ensure these are required rather than simple analgesia. Use least GI toxic e.g. ibuprofen, naproxen, diclofenac.
  - ☞ OTC NSAID use
- OTC antacid/PPI/H2 antagonist/alginate use
- Theophyllines, bisphosphonates, corticosteroids, calcium antagonists, nitrates and NSAIDs can all cause dyspepsia
- The most common side effects from medication are GI disturbances, headache and dizziness

## **Lifestyle advice**

- Avoid large meals just before bedtime
- Reduce amount of fat in the diet
- Raise the head of the bed at night
- Avoid smoking, caffeine, alcohol and foods which worsen their symptoms
- Weight management (Obesity is a cause of dyspepsia)

**Signposting**

Prodigy Website [www.cks.library.nhs.uk/patient\\_information/leaflets](http://www.cks.library.nhs.uk/patient_information/leaflets)

Gastroclub - [www.gastroclub.co.uk/contact.html](http://www.gastroclub.co.uk/contact.html)

Devon/Torbay/Plymouth PCT smoking cessation services:

Exeter	01392 207462	East Devon	01395 282065
Mid Devon	01884 23444	Teignbridge	01626 357039
Plymouth	0845 1558080	Torbay	01803 299160
North Devon	01769 575115		

For more information go to [www.gosmokefree.co.uk/localservicesearch.aspx](http://www.gosmokefree.co.uk/localservicesearch.aspx) or call the NHS smoking helpline on 0800 1690169

**Further Resources**

NICE Guidance No 17 found at [www.nice.org.uk](http://www.nice.org.uk)

# **Eczema**

## **Patient Recruitment/Triggers**

All patients who regularly use topical products may benefit from a MUR, however patients who may particularly benefit include:

- Those referred by another healthcare professional
- Patients using large amounts of steroid cream over long periods of time
- Patients under-using emollients
- Elderly patients

**Confirm diagnosis** with patient e.g. atopic eczema, infected eczema

## **Medication concordance**

Emollient – steroid sparing moisturiser/hydrator

- The correct emollient is the one that the patient prefers. Check side effects/unsuitability/efficacy
- Apply liberally 3 to 4 times a day
- Check application technique e.g. smooth on in direction of hairs, do not massage in.
- Make sure it is on repeat prescription
- Order in large quantities e.g. Adults = 600g each week. Check PMR
- If anti-bacterial – is this required long-term?

Steroid – anti-inflammatory

- Check potency is correct and explain the differences to patients e.g. milder potencies on face
- Apply once or twice a day accordingly
- Check application compliance (FTUs). Explain use ‘sparingly’
- Ensure application is in rotation with moisturisers.
- Check quantities being ordered – PMR
- Review need for reduction in frequency of application

Washing substitutes and bath additives

- Most emollients can be used as soap subs (not wsp)
- Are these being used?
- Check compliance e.g. is enough being used?
- Beware of slipping – e.g. elderly/arthritis.
- Showering only? Suggest switch to shower gel
- Aqueous cream is a good soap substitute

Antihistamines.

- Drug of choice is hydroxyzine/chlorpheniramine
- Use at night only
- Care with drowsiness even with supposed non sedators

## **Lifestyle Advice**

Avoid soap, using a substitute e.g. aqueous cream

Avoiding cosmetic moisturisers/hand creams

Avoid extremes in temperature

Keeping nails short

### **Information**

Finger Tip Unit (FTU) sheet ([www.lpc-online.org.uk/devon\\_lpc/?news\\_id=367](http://www.lpc-online.org.uk/devon_lpc/?news_id=367))

Eczema Booklet (inc. skin care plan (Leo))

Prodigy PIL on eczema [www.prodigy.nhs.uk/patient\\_information/pils/by\\_condition/skin\\_and\\_nails](http://www.prodigy.nhs.uk/patient_information/pils/by_condition/skin_and_nails)

### **Signposting**

National Eczema Society (also good if psychological distress) [www.eczema.org](http://www.eczema.org)

British Association of Dermatologists - [www.bad.org.uk](http://www.bad.org.uk)

*Also [dermnetz.org](http://dermnetz.org), good for patients and professionals*

### **References:**

'Scratching the Surface' – Dermatology Division, Leo Pharmaceuticals. Good for application techniques.

A Practical guide to prescribing topical steroid-based treatments - Dermatology Division, Leo Pharmaceuticals

BADS guidelines

# Heart Failure

## Common Medications

### Diuretics

- Loop diuretics e.g. furosemide and bumetanide have potent action but generally last only up to 6 hours- so can be given twice in one day without disturbing sleep.
- Thiazide diuretics e.g. bendroflumethiazide have greater duration of action and so given once daily.
- Spironolactone, a potassium sparing diuretic and aldosterone antagonist can be used in severe heart failure

ACE inhibitors may help to relax arteries and reduce workload of the heart. Doses are started low and titrated upwards every 2-4 weeks to maximum tolerated dose. Angiotensin II receptor agonists may be alternative for patients who can tolerate ACEI for example who develop persistent cough. Not all patients with heart failure benefit from taking ACE inhibitors.

Beta blockers e.g. bisoprolol and carvedilol may produce a benefit by blocking sympathetic activity. Initial dosage is low and gradually built up to a maximum tolerated dose

Digoxin is used for patients with AF and to some patients in sinus rhythm who are still symptomatic despite using, ACE, beta blocker and diuretics

## Concordance tips + issues

Treatment of Heart Failure is complex and often requires specialist involvement particularly in moderate and severe stages of the disease.

Most patients will benefit from understanding what each of their medications does and why they are taking them.

Providing a compliance chart may be a helpful aid.

Patients with severe heart failure may benefit from collection and delivery services if your pharmacy provides this service.

## Lifestyle Advice

- Take regular exercise, such as brisk walking and remain physically active as this helps to keep heart working strongly.
- Smoking cessation is important if patient is a smoker.
- Excessive alcohol intake can be a cause of heart failure. GP or specialist should be consulted about how much alcohol may now be safe to drink.
- Annual flu vaccination is important
- Pneumococcal vaccination should be given every 5-10 years
- Avoid adding salt to food
- Take specialist advice on volume of fluid drunk each day.
- Air travel may be problematic for patients with **severe** heart failure due to oedema in the ankles and breathing difficulties. These patients should consult their specialist before planning journeys involving air travel

## Signposting

Local Heart failure Team

British Heart Foundation [www.bhf.org.uk](http://www.bhf.org.uk)

## Further pharmacist resources;

NICE guidance Chronic Heart Failure CG5 <http://guidance.nice.org.uk/CG5>

MeReC bulletin The Diagnosis and treatment of heart failure issue 15

[www.npc.co.uk/MeReC\\_Briefings/2001/briefing\\_no\\_15.pdf](http://www.npc.co.uk/MeReC_Briefings/2001/briefing_no_15.pdf)

## **Hypertension**

### **Patient Recruitment**

All patients who antihypertensives may benefit from review, however patients who may particularly benefit include:-

- Those referred by another health care professional
- Patients who may be at risk from falls
- Patients returning unused medication
- Patients buying/using soluble OTC medicines
- Patients with uncontrolled hypertension

### **Background Information**

- Conesus suggests that optimal target blood pressure should be <140mmHg systolic BP and <85mmHg diastolic. Lower targets are desirable for patients with diabetes, established cardiovascular disease and renal failure. Blood pressure readings vary considerably across the day and can be affected by environment and exercise- several readings are recommended before confirming a diagnosis of hypertension.
- New joint guidelines have recently been published by NICE and the British Hypertension Society (see references below). These include an algorithm for step wise approach to using antihypertensives in primary hypertension (without other CHD conditions or diabetes).

#### **1<sup>st</sup> line choice**

For patients over 55 years or of Afro-Caribbean descent – any age

**(D) thiazide Diuretics** e.g. bendroflumethiazide OR

**(C) Calcium Channel Blockers** e.g. amlodipine, felodipine, nifedipine and lercanidipine

For patients under 55 years

**(A) ACEi** e.g. enalapril, ramipril, quinalapril, perinfopril and trandolapril

If BP is not at target level then additional drugs should be added in sequential manner

Other antihypertensives include beta blockers, alpha blockers, vasodilators and other diuretics. Hypertension is a major modifiable risk factor for coronary heart disease. Lowering raised blood pressure (BP) will decrease the risk of stroke, myocardial infarction, heart failure and other coronary events

Patients who are taking antihypertensives should be assessed for their CVD risk by their GP practice. According to their risk level other therapies such as statins and aspirin may also be used.

### **Concordance tips + issues**

Points to check:

- Thiazide diuretics are taken in the morning. Duration of action for bendroflumethiazide is 15-24 hours so can be given once a day in the morning so that the diuretic effect won't interfere with sleep.
- Thiazide diuretics can aggravate the symptoms of gout.
- ACE inhibitors can cause rapid fall in blood pressure, particularly when first started, leading to postural hypotension, - feeling of faintness or light headed. Patients should take particular care when rising out of bed or chair.
- ACEi can cause a persistent dry cough. Angiotensin II receptor agonists may be a suitable alternative or another type of antihypertensive but take care not to agree this with the patient and suggest only when absolutely necessary
- Calcium Channel blockers- once a day formulations are preferable e.g amlodipine, nifedipine LA or felodipine SR as compliance is better and there is less variation in BP over 24 hours. Prescribe nifedipine by brand or make sure brand is on patients PMR

- Beta blockers are no longer a first line choice may be reviewed at next routine appointment with GP. If BP is controlled or there is another CHD condition such as angina or MI, which favours use of beta-blocker it is safe for patient to continue. If beta-blocker is stopped the dose should be reduced gradually. They are C/I in asthmatics.
- The majority of patients require two or three drugs to control their blood pressure. This increases the incidence of side effects, particularly of postural hypotension. This may increase the risks of falls and management of this risk in the elderly is important
- For diabetics the use of ACEI as first line + diuretic if needed is more usual first line treatment.
- High salt content is present in some soluble tablets e.g. soluble paracetamol and chewable indigestion tablets e.g. Gaviscon® Advance – swapping to an alternative formulation maybe beneficial.
- Local PCT guidelines may indicate preferred cost –effective treatment regimens for your NHS area.

### **Lifestyle Advice**

A combination of healthy lifestyle measures may reduce elevated blood pressure by up to 10 mmHg

- Achieving optimum body weight (BMI < 25)
- Adopt a healthy low fat diet with plenty of fruit and vegetables (5 a day)
- Take aerobic exercise for 30–60 minutes, three to five times each week.
- Limit alcohol consumption to no more than 21 units/week (men) and 14 units/week (women), with intake spread out over the week.
- Reduce dietary sodium intake to less than 6g of salt per day.
- Avoid excessive consumption of coffee (>5 cups) and other caffeine-rich products that can raise BP.

Modifying other co-existing CHD risk factors is also important; -

- Smoking cessation advice where needed
- Reducing elevated cholesterol
- A diabetic patient must maintain good control of glucose/ HbA1c

### **Signposting**

Local project details can be found on the following websites:

Devon PCT – [www.devonpct.nhs.uk](http://www.devonpct.nhs.uk)

Plymouth tPCT – [www.plymouth-pct.nhs.uk](http://www.plymouth-pct.nhs.uk)

Torbay Care Trust - [www.torbaycaretrust.nhs.uk](http://www.torbaycaretrust.nhs.uk)

Smoking Cessation Services – [www.gosmokefree.co.uk](http://www.gosmokefree.co.uk) or [www.smokefreedevon.org](http://www.smokefreedevon.org)

Walking your way to Health - [www.whi.org.uk](http://www.whi.org.uk)

British Heart Foundation - [www.bhf.org.uk](http://www.bhf.org.uk) This web site has particularly good resources for patient lifestyle advice.

Blood Pressure Association [www.bpassoc.org.uk](http://www.bpassoc.org.uk)

### **Further resources;**

Nice Guidance Hypertension CG34 2006 [www.guidance.nice.org.uk/CG34/guidance/pdf/English](http://www.guidance.nice.org.uk/CG34/guidance/pdf/English)

MeReC bulletin Vol 17 no 1 2006 The management of hypertension in primary care

[www.npc.co.uk/pdf/Hypertension\\_Whole\\_document.pdf](http://www.npc.co.uk/pdf/Hypertension_Whole_document.pdf)

British Hypertension Society [www.bhsoc.org](http://www.bhsoc.org)

For pharmacies offering blood pressure or cholesterol testing RPSGB practice guidance should be followed.

# Osteoporosis

People at greatest risk of osteoporosis include; -

- Maternal family history of osteoporosis
- Women who have had an early menopause/hysterectomy before age 45 years.
- People who take long term oral steroids (usually for asthma or arthritis)
- People who have suffered a fracture after a minor trauma – fragility fracture
- Older people – particularly if they are losing height.

## **Common Medications**

**Bisphosphonates** are treatment option recommended by NICE for secondary prevention of osteoporosis and work by reducing the rate of bone turnover

**Alendronic Acid** 70mg. The once weekly formulation is currently most cost effective treatment

**Risedronate** sodium 35mg weekly is also considered a drug of choice

**Disodium etidronate** can be considered when the above bisphosphonates not tolerated

**Ibandronic acid** 150mg, once a month dose may be considered where compliance with once a week regimen is a significant problem.

**Strontium ranelate** 2g daily may have a place for treatment where bisphosphonates are not tolerated or C/I but usually reserved for 2ndry prevention in older women.

**Calcium and Vitamin D** Therapeutic daily doses recommended are 1g of elemental Calcium plus 20mcg Vitamin D. Cost effective choices are currently Calcichew D3Forte® two daily, Calceos® two daily, Adcal D3® two daily

**HRT** Use of HRT is a possible treatment option for osteoporosis but is no longer first line choice.

## **Concordance tips + issues**

All bisphosphonates are poorly absorbed. It is estimated only between one and five per cent of the ingested dose is actually absorbed. Absorption is improved by taking on an empty stomach, either first thing in the morning after overnight fasting and then avoiding food and other medications (especially calcium) for 30 minutes or in the middle of a four hour fast.

Bisphosphonates commonly cause gastro intestinal side effects. These are minimised by taking with large glass of water whilst standing or sitting upright- patients should not lie back down for 30 minutes after taking medication. Taking once a week dose lessens frequency of symptoms. Patients may require advice on suitable day of week and value tips to aid remembering taking the medication.

Calcium and Vitamin D tablets need to be chewed or crushed before swallowing. Breaking the tablet and crushing to a powder between two teaspoons may help patients who dislike or can't cope with chewing tablet. Sachet formulations are available for those patients who cannot tolerate the chewed tablet.

Compliance with these medications is generally poor. This is mainly due to the complexity of instructions, the taste and side effects. Some time should be taken to explain the health benefits of taking both of these medications for those patients who are poor at compliance.

## **Lifestyle Advice**

Diet

- Calcium -The recommended daily intake of calcium can be obtained from milk (not affected by whether it is skimmed, semi or full fat milk). Other dietary sources include green leafy vegetables such as spinach, fish such as sardines and tinned salmon and other dairy sources such as yoghurts and hard cheese. 1000mg of daily Calcium is recommended for postmenopausal women.

- Vitamin D is mainly sourced by exposure to sunlight. This ability to absorb the vitamin decreases with age. Calcium and Vitamin D supplementation as primary prevention for housebound and elderly individuals who are increased risk of falls should be considered

Weight bearing exercise such as walking and cycling is very beneficial in strengthening bones. High impact exercise and weight bearing exercise is also beneficial but patient should consult with a trained professional before undertaking vigorous changes to exercise regimen.

Smoking increases the risk of suffering fracture.

Alcohol intake above two units a day is associated with increased risk of fracture and also with increased risk of falling.

Falls risk assessment may be appropriate for patients who have reported falling.

### **Signposting**

- National Osteoporosis Society [www.nos.org.uk](http://www.nos.org.uk)
- Local council may offer free home safety check for frail elderly residents
- If patient has suffered fall(s) and not made GP practice aware then they should discuss this at next appointment as may be appropriate to access multidisciplinary help given through falls pathway.

### **Further pharmacist resources**

Local prescribing protocol for osteoporosis will give guidance on preferred treatment options and identify the risk groups to be given primary prevention treatment (PCT Medicines Management team)

MeReC bulletin 2001 vol 12 no2 [www.npc.co.uk/MeReC\\_Bulletins/2001Volumes/pdfs/vol12no2.pdf](http://www.npc.co.uk/MeReC_Bulletins/2001Volumes/pdfs/vol12no2.pdf)

SIGN guidance [www.sign.ac.uk/guidelines/fulltext/71/index.html](http://www.sign.ac.uk/guidelines/fulltext/71/index.html)

National Osteoporosis Health Professional support  
[www.nos.org.uk/professionals/support-for-professionals](http://www.nos.org.uk/professionals/support-for-professionals)

