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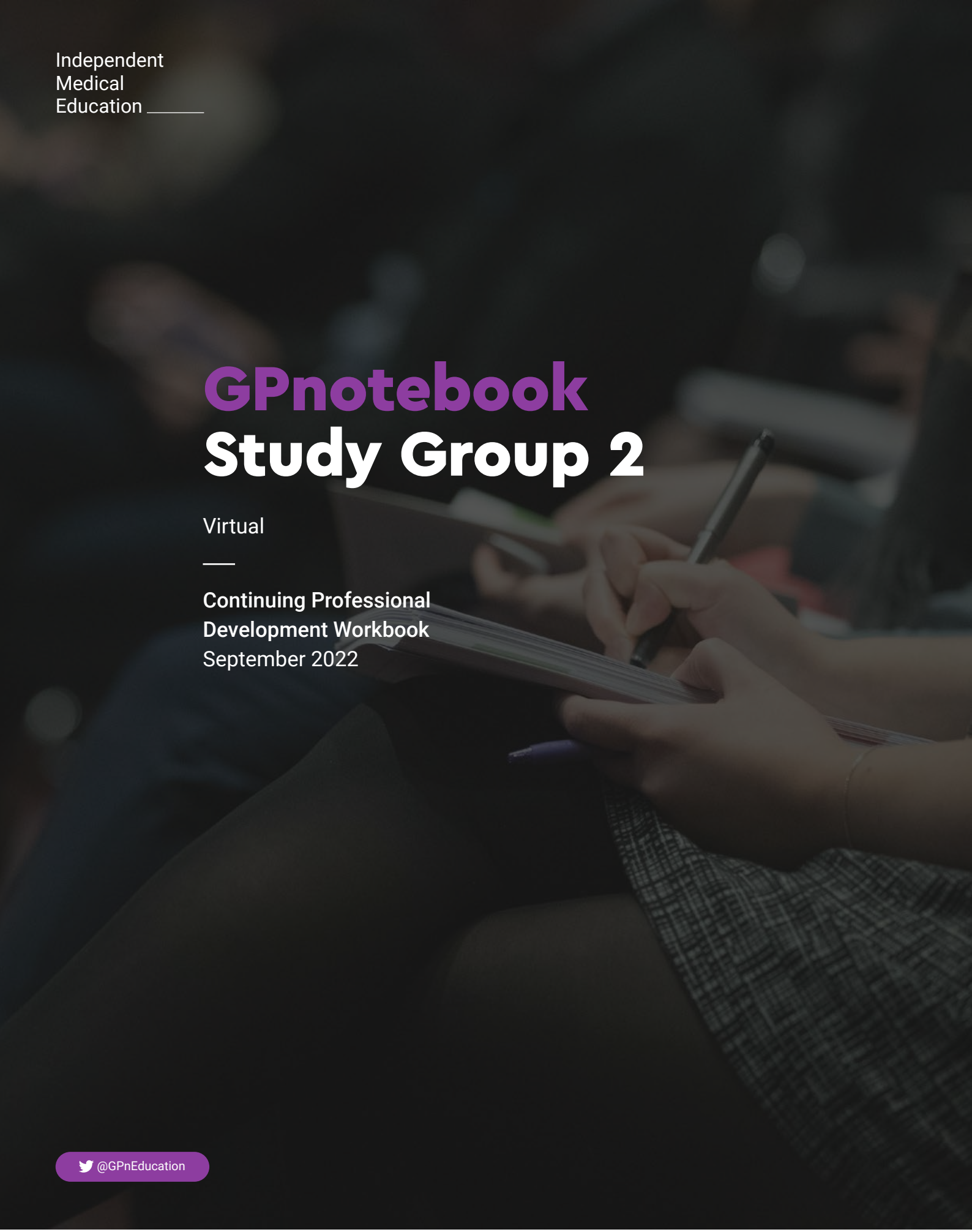

GPnotebook
Study Group 2

Virtual

Continuing Professional Development Workbook
September 2022

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GPnotebook is a long established, well-loved and valued online resource with over 100,000 users worldwide. GPnotebook Education will bring this fantastic resource to life, with face-to-face (GPnotebook Study Groups) and online content, to help us help our patients in a clinically effective, time-efficient and empathic manner.

This workbook provides a summary of the associated learning points and the key take home messages, as well as a comprehensive list of the research and resources used.

We have also developed a series of GPnotebook Shortcuts which are aide memoires across a number of clinical specialties to help us help our patients in primary care. These can be accessed at https://gpnotebookeducation.com/shortcuts/

Check out our GPnotebook Podcast channel – a bite-sized regular chat for all of us working in primary care. The podcasts cover clinical tips and hacks as well as hot topics to help make our lives a wee bit easier but ultimately to help improve the lives of our patients in primary care. GPnotebook Podcasts can be accessed on Spotify and Apple Podcasts.

We are under unprecedented pressure in primary care; we are asked to do more and more with fewer and fewer resources. Working hard for something we don't care about is called stress, working hard for something we love is called passion. We are all united in primary care by a passion to help improve the lives of our patients. It is our sincere hope at GPnotebook Clinics that we can help maintain that passion.

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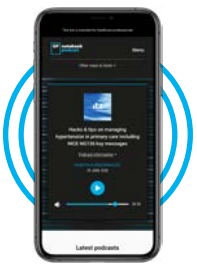

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STUDY GROUP 2

Session
Cardiology • Management of heart failure • When to refer for an echo • Familial hypercholesterolaemia
Dermatology • Emollient use in dry skin conditions
ENT • Ménière's disease • Tinnitus • Sore throats and antibiotics
Sexual health • HIV updates

Session_____

1.0
Cardiology

Heart failure management

Key Take Home Messages and Practice Changing Points:

- Over 900,000 people in the UK with heart failure
- Mortality rates poor – 40% of all new cases die within 12 months
- Heart failure with reduced ejection fraction (HFrEF); an ejection fraction less than 40%
- Heart failure with preserved ejection fraction (HFpEF); an EF 40% or above and relaxation of the left ventricle usually affected rather than contraction
- People with HFpEF are more likely to be older and female than those with HFrEF
- In general, the lower the ejection fraction the poorer the prognosis
- CHD and hypertension are the commonest causes
- There isn't one symptom or sign that's both specific and sensitive for chronic heart failure
- In all people with suspected heart failure, an NT-proBNP must be done. (N-terminal pro-B-type natriuretic peptide)
- Other tests include an ECG, CXR and ECHO

Key management points include:

- Modify lifestyle – smoking / alcohol / exercise / diet and fluid intake(1.5-2l/day, restrict salt to <6g daily)
- All patients with HFrEF should receive an ACEi
- Give diuretics in combination with an ACEi
- All patients with HFrEF should receive a beta blocker if no CI / tolerated. Should be initiated in stabilised patients already on diuretics and ACEi regardless whether symptoms present or not
- Angiotensin-II receptor antagonists (ARBs) in pts with HFrEF who can't tolerate an ACEi – candesartan and valsartan licensed for this
- If intolerant of ACEi and ARB consider hydralazine and nitrate

All patients with HFrEF

- First line: ACEi/ARB
- Beta blocker
- Diuretic if required
- Record weight
- Consider fluid (1.5-2l) and salt (2-3g) restriction
- Check iron levels
- Involve community heart failure nurse early
- Consider cardiac rehabilitation to improve exercise capacity and QOL

If symptoms persist

Optimise all drug doses and push diuretics if fluid overloaded
Add second-line agents:

- Add dapagliflozin if LVEF less than 40% and eGFR > 20 ml/min/m2, they do not have T1D and are not on high doses of insulin with T2D
- Add a mineralocorticoid receptor antagonist (spironolactone, epleronone) if LVEF <35%, eGFR >30 and BP permits

In certain groups 3rd line agents may be needed such as hydralazine, nitrates, ivabradine and digoxin. Refer for palliative care if appropriate.

Persistent symptoms and LVEF <35%

Consider device therapy such as an ICD and combine with cardiac resynchronization therapy (CRT) pacing if LBBB and qualifying QRS duration present.

References and resources

- Management of heart failure with reduced ejection fraction in 2021: an update for GPs | British Journal of General Practice (bhf.org.uk)
- Overview | Chronic heart failure in adults: diagnosis and management | Guidance | NICE
- Heart Failure Information for Patients & Caregivers - Heart Failure Matters
- Heart Failure - Causes, Symptoms and Treatment - British Heart Foundation (bhf.org.uk)

Prescribing Pearls

- Diuretics give symptomatic relief but don't alter prognosis. Start with a low dose and increase depending on response. Review electrolyte balance regularly. Where the response is insufficient consider switching from furosemide to bumetanide or torasemide or add an aldosterone antagonist
- Use beta blockers in all patients with HFrEF where tolerated and not contra-indicated. Evidence of benefit in heart failure is limited to bisoprolol, carvedilol, nebivolol and metoprolol. If patient already taking a beta blocker that isn't recommended (such as atenolol) NICE say they should continue this. Titrate over 3-4 titrations (every 1-2 weeks) to target dose of (e.g.) Bisoprolol 10mg od or Carvedilol 25-50mg b.d.

- All patients with HFrEF - regardless of symptom severity – should start an ACEi unless not tolerated or contra-indicated. Check U and E's before starting then after 2 weeks, titrating up dose provided renal function is maintained. Recheck U and E's at one, three and six months once stable and then every six months. If creatinine rises to > 310micromol/L stop the ACEi. If a chronic cough develops, switch to an angiotensin-II receptor antagonist. Titrate over 3-4 titrations up to target dose of (e.g.) Ramipril 10mg od, Perindopril 4-8mg od or Lisinopril 35mg od.
- ARBs are indicated in HFrEF for people who are unable to tolerate ACE inhibitors. Candesartan, losartan and valsartan are licensed for this. Titrate over 4 titrations to target dose of Losartan 150mg od, Valsartan 160mg bd and Candesartan 32mg od.
- Digoxin has a limited role in heart failure as rhythm control has not been shown to be superior to rate-control strategies
- Treatment with sacubitril valsartan should only be started by a heart failure specialist, and in symptomatic people with an LVEF <35% and who are on stable doses of ACE inhibitors or angiotensin-II receptor blockers
- Avoid drugs such as Flecainide, Calcium-channel blockers (apart from amlodipine),TCAs, Lithium, NSAIDs, COX-2 inhibitors and Corticosteroids

Notes

When not to refer for an echo in primary care

Key Take Home Messages and Practice Changing Points

- Echocardiography is an essential tool in a wide range of clinical scenarios
- Appropriate use of an ECHO scan can improve clinical outcomes by increasing diagnostic accuracy, providing non-invasive or minimally invasive assessment of disease status and risk stratification, and enabling real-time monitoring and guidance of interventional procedures
- Conditions where there is likely to be a low clinical yield in primary care from ECHO scanning include:
  - Heart murmur
  - Suspected heart failure (not confirmed)
  - Hypertension
  - Cardiac mass
  - Pulmonary disease
  - Palpitations
  - Pericardial disease
  - Established cardiomyopathy
  - Inherited cardiac disease
- No evidence of ECHO benefit in an unchanged murmur in someone who is asymptomatic and who has had a previous normal ECHO, or in the assessment of an innocent (physiological) murmur
- In suspected heart failure if there is a normal physical examination, a normal ECG and normal NT-pro-BNP level then no indication for an ECHO (even if cardiomegaly on CXR)
- The presence of simple cardiomegaly (without pulmonary congestion or other findings suggestive of cardiac disease) on a CXR doesn't warrant an ECHO as the likely yield of identifying significant cardiac pathology is low
- In hypertension, an ECHO isn't indicated routinely to evaluate a patient with a normal 12-lead ECG and normal physical examination. However, hypertension in a patient under the age of 40 can trigger an ECHO to search for causes of secondary hypertension (such as coarctation of the aorta) and end organ damage
- Lung disease with no clinical suspicion of cardiac involvement or pulmonary hypertension does not warrant echocardiography
- ECHO surveillance is mandated in patients who are primary-degree relatives of affected individuals with inherited cardiac diseases
- Classical vasovagal syncope doesn't require echocardiography, nor do palpitations without any ECG proof of an arrhythmia, or clinical suspicion of heart disease on examination
- Avoid repeating an echocardiogram in the absence of a change of patient symptoms or signs, in patients with terminal or significantly life-limiting diseases, where an echo wouldn't alter their management or in patients with significant frailty in which an echo would also not alter their management

References and resources

- Echocardiogram | BHF
- Referring for echocardiography: when not to test - PubMed (nih.gov)
- Echocardiography is not indicated for an enlarged cardiothoracic ratio - The British Journal of Cardiology (bjcardio.co.uk)

Familial hypercholesterolaemia

Key Take Home Messages and Practice Changing Points

- Heterozygous FH occurs in at least 1 in 500 people in the UK (approx. 110,000) but some recent genetic studies suggest may be as high as 1 in 250 people.
- Most cases of FH remain undiagnosed
- Only an estimated 8-15% of cases are known
- Important since CHD risk is increased by 50% in men by age 50 and by 30% in women at the age of 60
- Most cases have a total cholesterol greater than 9mmol/l
- The usual diagnostic criteria is based on the Simon Broome criteria (use this to make a clinical diagnosis of FH in primary care):

Definite FH

- Adult FH: TC > 7.5mmol/l, LDL-C > 4.9mmol/l
- Child/young person: TC > 6.7 mmol/l, LDL-C > 4mmol/l
- +/- tendon xanthomas – these are virtually diagnostic of FH with elevated cholesterol levels and occur in around 70% of affected individuals over the age of 20 (however, their absence doesn't exclude FH)

Possible FH

Cholesterol levels as before plus at least one of:

- A history of MI younger than 50yo in a second degree relative or under 60 in a 1st degree relative
- A history of a TC > 9.5mmol/l in an adult 1st or 2nd degree relative, or > 6.7 mmol/l in a child, brother or sister over the age of 16

Suspect FH as a possible diagnosis in adults with:

- A total cholesterol >7.5 mmol/l or:
- A personal or family history of premature CHD under the age of 60

Systematically search records for people:

- Younger than 30 with a TC > 7.5mmol/l
- Older than 30 with a TC > 9mmol/l (these are the people at highest risk of FH)
- Also, consider the diagnosis if LDL-C >13 (adults) or >11(young people)
- Achilles tendon ultrasound is not recommended

Treatment is lifelong - start with a high-intensity statin (statins are classified as high intensity if they produce average reductions in LDL-C greater than 40%) and aim for at least a 50% reduction in LDL-C from baseline. If statin not tolerated, start ezetimibe.

If LDL-C reduction not achieved, refer to FH specialist (children should always be referred).

References and resources

- Recommendations | Familial hypercholesterolaemia: identification and management | Guidance | NICE
- Familial hypercholesterolaemia| British Heart Foundation (bhf.org.uk)
- What is FH? - HEART UK - The Cholesterol Charity

Prescribing Pearls

When offering lipid-modifying drug therapy to adults with FH, inform them that this treatment should be life-long.

Offer a high intensity statin (classified as high intensity if they produce average reductions in LDL-C greater than 40%) with the lowest acquisition cost as the initial treatment for all adults with FH and aim for at least a 50% reduction in LDL C concentration from the baseline measurement.

The dose of statin should be increased to the maximum licensed or tolerated dose to achieve a recommended reduction in LDL C concentration of greater than 50% from baseline (that is, LDL C concentration before treatment).

Ezetimibe monotherapy is recommended as an option for treating primary heterozygous familial hypercholesterolaemia in adults in whom initial statin therapy is contraindicated.

Ezetimibe monotherapy is recommended as an option for treating primary heterozygous familial hypercholesterolaemia in adults who cannot tolerate statin therapy.

Ezetimibe, co administered with initial statin therapy, is recommended as an option for treating primary (heterozygous familial) hypercholesterolaemia in adults who have started statin therapy when serum total or low density lipoprotein (LDL) cholesterol concentration is not appropriately controlled - either after appropriate dose titration of initial statin therapy or because dose titration is limited by intolerance to the initial statin therapy - and a change from initial statin therapy to an alternative statin is being considered.

When prescribing ezetimibe co-administered with a statin, ezetimibe should be prescribed on the basis of lowest acquisition cost.

The most common side effects of PCK9-inhibitors - which affect less than 1 in 10 but more than 1 in 100 people – are flu-like symptoms such as cold, nausea, back and joint pain, soreness or itchiness at the injection site and muscle pain.

NICE has also now recommended bempedoic acid in combination with ezetimibe for people who are unable to take statins, and ezetimibe alone doesn't lower their cholesterol sufficiently, and who don't meet the strict criteria for a PCSK9 inhibitor. Two tablets currently available - Bempedoic acid 180mg od and Bempedoic acid 180mg and ezetimibe 10mg od.

Inclisiran is the newest treatment in FH, given by injection every three to six months, specifically for people whose cholesterol is not adequately controlled with statins, ezetimibe or bempedoic acid.

Notes

Session

2.0
Dermatology

Emollient use in dry skin conditions

Key Take Home Messages and Practice Changing Points

- Dry skin conditions are very common and all healthcare professionals should be aware of the place of emollient therapy in managing mild-to-moderate skin conditions
- An emollient is defined as a lipid or oil that hydrates and improves the appearance of the skin, reduces clinical symptoms of dryness and scaling and improves sensations, including itching and tightness
- Humectant ingredients such as urea can enhance the moisture-retaining ability of emollients and therefore their effectiveness
- Patient education and patient choice are both equally important for treatment adherence and achieving the best possible outcomes for managing the symptoms of dry skin conditions
- Complete Emollient Therapy (CET) is essential daily management for chronic inflammatory skin conditions, where dry skin is a key symptom
- The key principle of CET is that everything that goes on the skin should be emollient based
- Aqueous cream BP should not be prescribed or used at all for people with dry skin, even as a soap substitute – it actually weakens the epidermal barrier and appears to cause more skin damage
- Explain the importance of skin barrier repair and why emollients are necessary to achieve it ; the skin barrier requires constant repair, achieved by the daily use of emollients for washing and moisturising – known as Complete Emollient Therapy (CET)
- Ask the patient which emollient(s) they are using, how much they use, and how often; it is important to understand the quantities and frequency of emollient use, to help develop accurate treatment plans
- Offer the patient a choice of emollients: sometimes more than one product may be required to achieve CET, e.g. ointment for night time use and a cream for during the day.
- Give precise instructions: revise application techniques with the patient, including how and when to apply
- Prescribe in generous amounts: patients should be prescribed emollients as first-line therapy for dry skin conditions, and it's important to ensure they have enough to last until their next prescription
- Review the patient to assess the effectiveness of CET: patient review is very important to assess the effectiveness of emollient therapy, check the patient is happy with their emollient choice, and revise application techniques and amounts applied

References and resources

- British Association of Dermatologists www.bad.org.uk
- Primary Care Dermatology Society www.pcds.org.uk
- Use of emollients in dry-skin conditions: consensus statement - PubMed (nih.gov)
- Emollients | Prescribing information | Eczema - atopic | CKS | NICE

Prescribing Pearls

- If Complete Emollient Therapy (CET) in combination with topical treatments is not controlling your patient's skin condition, or it is becoming more severe and you are confident that they are adhering to your treatment guidelines, then referral to a dermatology specialist should be considered.
- Emollients should be applied all over the body, not just the affected areas
- Application of emollients is a maintenance treatment, used as a means of preventing future flares
- Emollients should be used at least twice daily to help keep the skin smooth and moisturised
- For full body use - an adult should use at least 500g of emollient per week, a child should use at least 250g of emollient per week
- 4g is the equivalent of one pump from a pump dispenser or one teaspoon
- Patients should be offered smaller-quantity packs for use at work or school in addition to their main prescription
- Always ensure a gap of at least 15 minutes between application of emollients and topical steroids
- Emollients have a steroid-sparing effect and should be supplied in a 10:1 ratio of emollient to steroid in order to achieve the full benefit
- There is no place for aqueous cream products, even as washing agents
- Patients should be made aware of the NHS pre-payment option, where appropriate

2.1
Dermatology

Notes

Session_____

3.0
ENT

Tinnitus

Key Take Home Messages and Practice Changing Points
In most cases tinnitus is due to heightened awareness of spontaneous electrical activity in the auditory system, that is normally not perceived.

It can, however, be a symptom of a significant and sometimes treatable pathology.

History
Ask about the tinnitus
- Nature of the sound
- Unilateral/ bilateral
- Intermittent/ constant
- Pulsatile/ non-pulsatile
- Timing of onset
- Duration of symptoms
- Exacerbating/ relieving factors
- Associated symptoms- hearing loss, hyperacusis, otorrhoea, otalgia, vertigo, aural fullness, TMJ pain, CN palsy or any other focal neurological symptoms.

Risk factors
- Hearing loss
- Noise exposure
- Trauma
- Iatrogenic injury
- Cardiovascular
- Metabolic disorders- hypothyroidism, hyperthyroidism, DM, lipid disorders,
- Zinc/ Vitamin B12 deficiency, anaemia.

Ototoxic medications
- Valproate,
- Loop diuretics,
- Aspirin, NSAIDs
- Antibiotics
  - Tetracyclines, (e.g., doxycycline)
  - Macrolides (e.g., erythromycin)
  - Aminoglycoside (e.g., gentamicin)
- Antimalarials (e.g., quinine, chloroquine)
- Cytotoxic agents (e.g., cisplatin)

Psycho-social
- How tinnitus affects quality of life
- Home, social, leisure, work and school
- How tinnitus affects sleep
- The psychological impact of tinnitus
- Ask about suicide risk

Examination
Guided by history
- Otoscopy (wax, infections, otitis media with effusion, perforation, cholesteatoma).
- Hearing (whisper test, Rinne and Weber tests)
- Objective (stethoscope placement close to the meatus and the skull behind the ear).
- Auscultation neck (bruits)
- TMJ
- Neurological examination inc. Cranial Nerves
- Cardiovascular- BP

Management in primary care
- Treat the cause
- Review medication
- Bloods (FBC, TFTs, HbA1c, Lipids)
- Offer an audiological assessment to all people with tinnitus.
- Hearing aids if hearing loss
- Psychological therapies for people with tinnitus-related distress
- DO NOT OFFER Betahistine

Patient Education
- Don't say "nothing can be done". Negative statements can exacerbate a patient's distress.
- Reassure the person with tinnitus, that for most there is no significant underlying pathology.
- Tinnitus is a common condition (up to 15% of the population).
- It may resolve by itself (40% of mild and 20% of severe tinnitus resolved by 5 years).
- Use noise protection
- Sound therapy (NICE unable to recommended due to lack of evidence)
- Local and national support groups (see the British Tinnitus Association's website)

Immediate referral
- Tinnitus with sudden onset of significant neurological symptoms or signs/ suspected stroke (for example, facial weakness).
- Tinnitus with acute uncontrolled vestibular symptoms (for example, severe vertigo)
- Tinnitus following trauma
- Sudden onset pulsatile tinnitus
- Tinnitus with significant suicidal risk

Referral- to be seen within 24 hours
- Tinnitus with hearing loss that has developed suddenly (over a period of 3 days or less) in the past 30 days.

Referral- to be seen within 2 weeks

- Tinnitus with hearing loss that developed suddenly more than 30 days ago or rapidly worsening hearing loss (over a period of 4 to 90 days).
- Tinnitus with mental distress preventing them carrying out their usual daily activities.

Referral- routine assessment

- Tinnitus that bothers the patient despite first-line interventions.
- Persistent objective tinnitus
- Tinnitus associated with unilateral or asymmetric hearing loss.
- Tinnitus associated with persistent otalgia or otorrhoea
- Persistent pulsatile tinnitus
- Persistent unilateral tinnitus.

References

1. British Tinnitus Association, Tinnitus guidance for GPs, March 2022 https://www.tinnitus.org.uk/guidance-for-gps
2. Ellis, S., Wilson, R. and Dolan, S. (2022) Tinnitus: Systematic approach to primary care assessment and management, British Journal of General Practice, 72, pp. 190-192.
3. NICE, Tinnitus: assessment and management March 2020
4. Thambyrajah, J. (2018), Top tips: tinnitus. Guidelines in Practice https://www.guidelinesinpractice.co.uk/eye-ear-nose-and-throat/top-tips-tinnitus-/453968.article

Resources

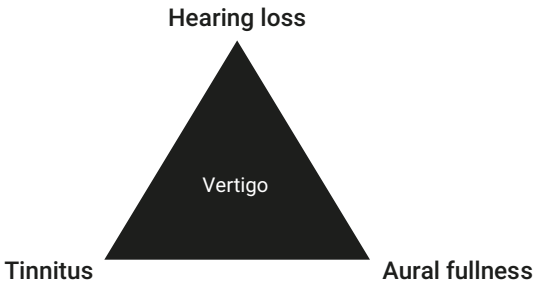
- The British Tinnitus Association, https://www.tinnitus.org.uk

Notes

Ménière's Disease

Key Take Home Messages and Practice Changing Points
Ménière's disease is an idiopathic disorder of the inner ear causing debilitating vestibular and auditory symptoms.
It is rare, the average GP will only diagnose about 2 cases in their entire career.

History
Vertigo attacks occur with hearing loss, tinnitus and aural fullness.



The attacks of vertigo tend to last between 20 minutes and up to 24 hours, although an unsteadiness feeling can persist for several days afterwards.

The tinnitus is often described as a "roaring". It appears initially during the acute attacks but later becomes permanent.

The hearing loss fluctuates initially but may progress to become permanent. It is sensorineural in nature and usually unilateral effecting low frequency sounds.

Aural fullness is a sensation of pressure in the ear, and it often occurs before and sometimes during the acute vertigo attack.

About 1 in 10 people with Ménière's disease also experience drop attacks (Tumarkin otholitic crises). These occur without loss of consciousness and without warning. Normal activities can be resumed immediately afterwards.

The social and psychological effects can be significant.

As the disease progresses the vertigo symptoms may resolve, but the person may have residual hearing loss and tinnitus.

Diagnosis
From the NICE guidelines:

"The diagnosis of Ménière's disease should only be made once conditions such as tumours (for example acoustic neuroma), multiple sclerosis, perilymph fistula, vascular events (for example transient ischaemic attack), migraine, benign paroxysmal positional vertigo, vestibular neuronitis, and acute labyrinthitis have been ruled out."

A referral to ENT is needed to confirm the diagnosis.

Management
Patients with Ménière's disease may need admission if they have severe symptoms for IV sedatives and fluids.

To rapidly relieve (severe) nausea or vomiting associated with Ménière's disease, consider administration of buccal prochlorperazine, or a deep intramuscular injection of prochlorperazine or cyclizine. If patients can tolerate oral therapy consider prescribing a short course (7 days, 14 days if required previously) of prochlorperazine, or an antihistamine (for example cinnarizine, cyclizine, or promethazine teoclate).

If the person's symptoms deteriorate or do not improve after 5–7 days, reassess to exclude an alternative diagnosis.

Prevention of acute attacks
Various dietary restrictions can help such as sodium restriction, caffeine restriction and increasing water intake.

Consider prescribing a trial of betahistine to reduce the frequency and severity of attacks of hearing loss, tinnitus, and vertigo. The results of the BEMED trial showed that long term treatment (over 9 months) with betahistine was no better than placebo in reducing attack rates.

If betahistine doesn't provide satisfactory help with symptoms, then refer patients to ENT for further management.

Advise people experiencing sudden attacks of vertigo to keep medication readily accessible.

Safety
Consider the risks to the patient if they develop a sudden attack. Advise them to avoid climbing ladders, operating dangerous machinery or going swimming.

Driving
Patients need to stop driving and notify the DVLA.

References
1. Adrion, C., Fischer, C.S., Wagner, J., Gürkov, R., Mansmann, U. and Strupp, M. (2016) Efficacy and safety of betahistine treatment in patients with Meniere's disease: primary results of a long term, multicentre, double blind, randomised, placebo controlled, dose defining trial (BEMED trial). British Medical Journal 352. DOI: https://doi.org/10.1136/bmj.h6816
2. McNiven, N.D., Deutsch, P.G., Carlin, J.E. and Trotter, M.I. (2021) Ménière's disease: management in primary care. British Journal of General Practice; 71, pp. 571-572.
3. NICE, CKS- Ménière's disease, November 2017

Resources
- The Meniere's Society (www.menieres.org.uk)

Acute Sore Throats and the Use of Antibiotics

Key Take Home Messages and Practice Changing Points
- "There is no evidence that sore throats a result of a bacterial cause are more severe than viral ones or that the duration of the illness is significantly different in either case." (NICE, 2021)
- 80% of patients are symptom free at 1 week regardless of whether they had a bacterial infection or not. (Spinks et. al, 2013)
- On average, even if bacterial, antibiotics are likely to reduce the duration of symptoms by <1 day. (Spinks et. al, 2013)

Causes
There are many causes, the lists below represent a selection.

Infectious
Common causes
- Viruses, e.g., rhinovirus, coronavirus, parainfluenza virus, influenza viruses, Epstein-Barr virus (glandular fever).
- Bacterial, e.g., group A beta-haemolytic streptococcus (scarlet fever).

Rarer causes
- Viruses, e.g., measles, HIV-1
- Bacterial, e.g., Haemophilus influenza type b (epiglottitis), Neisseria gonorrhoeae
- Fungal, e.g., Candida albicans

Non-infectious
- Physical irritation
- Hayfever
- GORD
- Haematological disorders e.g., leukaemia
- Oropharyngeal cancer

Clinical scoring systems
- NICE advise that we should use either the FeverPAIN or the Centor criteria to determine the likelihood of streptococcal infection.
- However, if the person is systemically very unwell, or has symptoms and signs of a more serious illness or is at high risk of complications, then we should offer an immediate antibiotic prescription (if a referral to hospital isn't needed).
- Patients at higher risk, and thus those for whom we should have a lower threshold for prescribing antibiotics (and also checking a FBC) include those:
  - On a DMARD (also withhold the DMARD)
  - On carbimazole (also withhold the drug)
  - Receiving chemotherapy,
  - With leukaemia,
  - With asplenia,
  - With aplastic anaemia
  - With HIV/AIDS,
  - Taking an immunosuppressive drug following a transplant

Complications
- The DESCARTE study of 13,000 patients in UK primary care found that 1.4% of patients developed complications. Most were minor, e.g., otitis media or rhinosinusitis. The rate of quinsy was 0.4%. There were no cases of post-streptococcal glomerulonephritis or rheumatic fever.
- Severe complications needing hospital admission include:

Epiglottitis
- Suggested by acute onset of a severe sore throat, fever, muffled voice, drooling, and stridor.
- A child with epiglottitis prefers to sit leaning forward. Breathing tends to be tentative and careful, without marked increase in respiration rate.
- In adults, predictors of airway compromise include sitting erect, stridor, and dyspnoea.
- Note: Do not examine the throat of anyone with suspected epiglottitis as this may precipitate closure of the airway.
- Arrange 999 ambulance transfer for anyone with suspected epiglottitis, so that the epiglottis can be examined where there is capacity to carry out immediate intubation should the airway close.

Quinsy (peri-tonsillar abscess)
- Suggested by severe throat pain, fever, drooling of saliva, trismus (difficulty opening the mouth), a muffled voice and neck stiffness.
- Clinical findings are a displaced uvula, and an enlarged, displaced tonsil, with swelling of the peri-tonsillar region.
- Compromise of the airway is rare.
- It is most common in children 2 - 4 years.

Parapharyngeal/ Retropharyngeal abscesses

- Suggested by a severe sore throat, dysphagia, trismus, stridor, dribbling of saliva, neck pain and a high fever.
- It may rapidly progress to airway obstruction.
- On examination the patient may have a stiff neck with limited neck movement and the head may be tilted to one side. A swelling in the neck may also be felt.

Lemierre's syndrome

- This is caused when an infection spreads from the throat, via a septic thrombophlebitis of the tonsillar vein and internal jugular vein. Septic emboli can then travel to a range of sites such as the lungs, joints, and bones.
- Consider it in sick, young, previously healthy young people who have had a history of sore throat in preceding seven days.
- A tender (normally unilateral) swelling at the angle of the jaw or anterior to, and parallel with, the sternomastoid muscle may be felt.

Delayed prescribing

NICE advises that we should consider offering a delayed prescription to patients with a FeverPAIN score of 2 or 3. We should advise patients that:

- the antibiotic is not needed immediately,
- to use the prescription if no improvement is seen in 3-5 days, or if symptoms worsen,
- to seek medical help if symptoms worsen rapidly or significantly or if they become very unwell.

Research has shown that delayed prescribing:

- does not increase the risk of complications compared with immediate antibiotics,
- significantly reduces re-consultation rates compared with immediate antibiotics and no antibiotics,
- provides similar symptomatic benefits compared to immediate antibiotics,
- does not reduce patient satisfaction levels compared to immediate antibiotics and only produces a slight increase in patient satisfaction levels compared with no antibiotics,
- decreases patients antibiotic use compared with immediate antibiotics.

Choices of antibiotics for sore throats

- First choice: phenoxymethylpenicillin 5-10 days
- Penicillin allergy (not pregnant): clarithromycin 5 days
- Penicillin allergy in pregnancy: erythromycin 5 days

Lastly, glandular fever

- Remember that giving amoxicillin to patients with glandular fever may produce a widespread, non-blanching, maculopapular rash.
- Advise patient with glandular fever to avoid heavy lifting and contact or collision sports for the first month of the illness (to reduce the risk of splenic rupture).

References

1. Little, P., Stuart, B., Hobbs, F.D.R., Butler, C.C., Hay, A.D., Delaney B., Campbell, J., Broomfield, S., Barratt, P., Hood, K., Everitt, H., Mullee, M., Williamson, I., Mant, D. and Moore, M. (2014) Antibiotic prescription strategies for acute sore throat: a prospective observational cohort study, The Lancet Infectious Diseases, 14(3) pp. 213-219.
2. NICE, CKS, Sore throat- acute, last revised January 2021.
3. NICE Guideline, Sore throat (acute): antimicrobial prescribing, 2018.
4. Riordan, T. and Wilson, M. (2004) Lemierre's syndrome: more than a historical curiosa, Postgraduate Medical Journal, 80 (944), pp. 328-334.
5. Spinks, A., Glasziou, P.P. and Del Mar, C.B. (2013) Antibiotics for sore throat, Cochrane Database of Systematic Reviews, Issue 11. Art. No.: CD000023. DOI: 10.1002/14651858.CD000023.pub4.
6. Wilcox, C.R., Moore, M. and Little, P. (2022) Use of antibiotics for acute sore throat and tonsillitis in primary care, British Journal of General Practice, 72 (716) pp. 136-137.

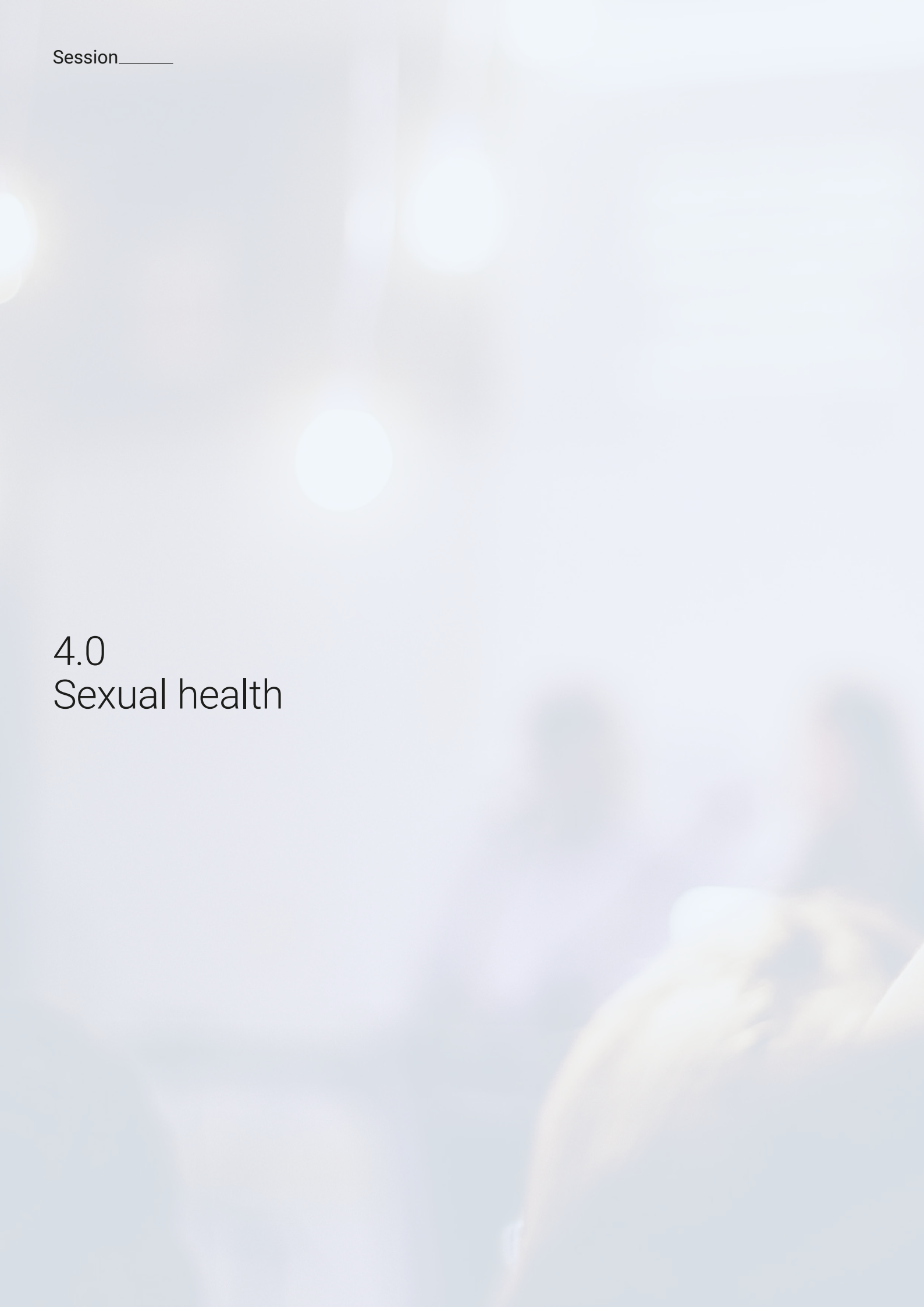
Resources

- RCPCH: What 0-18 leaflet for parents/ young people on how to manage sore throats: https://what0-18.nhs.uk/professionals/gp-primary-care-staff/safety-netting-documents-parents/sore-throat-advice-sheet
- RCGP: TARGET antibiotics toolkit hub, advice for adults on how to manage respiratory tract infections, including sore throats: https://elearning.rcgp.org.uk/mod/book/view.php?id=12653

Notes

Session

4.0
Sexual health



HIV Update

Key Take Home Messages and Practice Changing Points

- Individuals who are diagnosed promptly with HIV can expect a near-normal life expectancy.
- With an undetectable viral load on antiretroviral therapy (ART), people living with HIV do not transmit the virus to their sexual partners.
- Of those individuals accessing care with a viral load result in 2018, 97% had an undetectable viral load.
- The UK government has recently committed to the elimination of HIV transmission by 2030.
- "To attain this target all individuals living with undiagnosed HIV will need to be offered testing and commenced on ART... There remains a significant proportion who are undiagnosed (7% in 2018), present late (43% in 2018), and continue to experience morbidity and mortality and contribute to the ongoing transmission of HIV." (BHIVA/BASHH/BIA adult HIV testing guidelines 2020)

Testing

- All healthcare workers should be able to offer an HIV test in their setting.
- Lengthy pre-test discussion is not required. Individuals should be made aware that they will be tested for HIV and informed how they will receive their result.

Who should be tested

1. People belonging to groups at increased risk of exposure to HIV, including:

- Men who have sex with men (MSM) and their female sexual partners,
- Black Africans,
- People who inject drugs (PWID),
- Sex workers,
- Prisoners,
- Trans women
- People from countries with high HIV seroprevalence (>1%) and their sexual partners (for an up to date country prevalence list see the UNAIDS Data 2021, available at: https://www.unaids.org/sites/default/files/media_asset/JC3032_AIDS_Data_book_2021_En.pdf)

2. HIV opt-out testing is recommended for all patients attending the following settings:

- Sexual health services
- Addiction and substance misuse services
- Antenatal services
- Termination of pregnancy services
- Healthcare services for hepatitis B and C, TB and lymphoma
- Individuals commencing chemotherapy or immunosuppressive or immunomodulatory therapy should be offered an HIV test in line with relevant NICE/speciality guidelines.

3. Sexual partners of an individual diagnosed with HIV.

4. All patients accessing primary and secondary healthcare in areas of high and extremely high HIV seroprevalence, including emergency departments.

- Routine HIV testing is recommended for all individuals who have not previously tested who are:
  - Accessing healthcare in areas of high HIV prevalence (2–5 per 1000) and undergoing venepuncture.
  - Accessing healthcare in areas of extremely high HIV prevalence (>5 per 1000), whether or not they are undergoing venepuncture for another indication.
- To find out the HIV prevalence in your local authority:
  - The UK Health Security Agency's publication at: https://www.gov.uk/government/statistics/hiv-annual-data-tables or
  - HIV Lens at: https://www.hiv-lens.org

5. All people presenting with symptoms and/or signs consistent with an HIV indicator condition. There are two categories:
1. Conditions that would be AIDS defining in an individual living with HIV,
2. Non-AIDS-defining conditions associated with an undiagnosed HIV seroprevalence >1 per 1000.

- Please see the British HIV Association (BHIVA)/British Association for Sexual Health and HIV (BASHH)/British Infection Association (BIA) adult HIV testing guidelines 2020, table 3, pages 29-31, for a full list of symptoms and signs.
- https://www.bhiva.org/file/5f68c0dd7aefb/HIV-testing-guidelines-2020.pdf

Frequency of HIV testing
An annual test is recommended for:
- PWID,
- Sex workers (those who fall into other risk categories such as MSM and trans women should test more frequently).
- Sexually active MSM (as a minimum, other than those with one long-term mutually exclusive partner).

Patients at very high risk should be tested every 3 months: e.g., MSM who:
- Have had multiple partners since their last HIV test,
- Who report drug use during sex.

Testing in clinical settings
Barriers to testing include HIV stigma and reluctance to offer testing by healthcare professionals.

The window period for:
- Fourth-generation laboratory serological HIV testing is 45 days,
- Third-generation laboratory tests, 60 days.

Community and self-testing/sampling
To date, five blood-based self-tests have been approved (CE marked) in Europe. All have a sensitivity and specificity of greater than 99% and are either second- or third-generation assays (longer window period).

They can be ordered online or purchased in some high-street pharmacies.

As there is a small possibility of a false-positive result, a single rapid diagnostic test is not sufficient to diagnose HIV and confirmatory laboratory testing is required.

PEP
PEP is a 28-day course of antiretroviral medication which is taken to reduce the risk of becoming infected with HIV.

PEP should be initiated as soon as possible after exposure, preferably within 24 hours. PEP should not be initiated beyond 72 hours after exposure.

If the patient is at risk advise them to contact their local sexual health service asking for PEP, their call will be prioritised. If their local sexual health centre is closed, then advised then to go straight to their local A&E.

PEP should be routinely offered:
1. Following receptive anal intercourse with an index partner of unknown HIV status or known to be HIV positive with an unknown or detectable HIV viral load.
2. Following insertive anal intercourse with an index partner known to be HIV positive with an unknown or detectable HIV viral load.
3. Following receptive vaginal sex with an index partner known to be HIV positive with an unknown or detectable HIV viral load.
4. Following an occupational exposure (sharps or mucosal splash) from an index case known to be HIV positive with an unknown or detectable HIV viral load.
5. For people who inject drugs after sharing needles/equipment if their index injecting partner is known to be HIV positive with an unknown or detectable HIV viral load.

PEP should be considered:
1. Following insertive vaginal intercourse with an index partner known to be HIV-positive with an unknown or detectable HIV viral load.
2. Following insertive anal intercourse with an index partner of unknown HIV status.

PEP is generally not recommended for the following scenarios:
1. Sharps and splash injuries, sharing of injecting equipment, receptive or insertive vaginal intercourse when the index case is from a high-risk group but the HIV status is unknown.
2. Human bite if the index case is HIV-positive with an unknown or detectable HIV viral load.

PrEP
PrEP is a drug taken by HIV-negative people, who are at high risk of contracting HIV, before and after sex.

PrEP offers almost 100% protection from HIV, if taken it as instructed.

From April 2020 PrEP became freely available on the NHS in England, Scotland and Wales from sexual health clinics (not from GP surgeries). It is available in Northern Ireland as part of a trial.

There are different ways it can be taken:
- regularly (one tablet per day).
- when needed (two tablets 2 to 24 hours before sex, one tablet 24 hours after sex and a further tablet 48 hours after sex).

References

1. British Association for Sexual Health and HIV (BASHH), UK guideline for the use of HIV post-exposure prophylaxis, 2021.
2. British HIV Association (BHIVA)/British Association for Sexual Health and HIV (BASHH)/British Infection Association (BIA), Adult HIV testing guidelines, 2020.
3. British HIV Association (BHIVA)/ British Association for Sexual Health and HIV (BASHH), Guidelines on the use of HIV pre-exposure prophylaxis (PrEP), 2018.

Patient Resources

- Terrence Higgins Trust (https://www.tht.org.uk/)

Notes

GP notebook education

Study Groups

gpnotebookeducation.com