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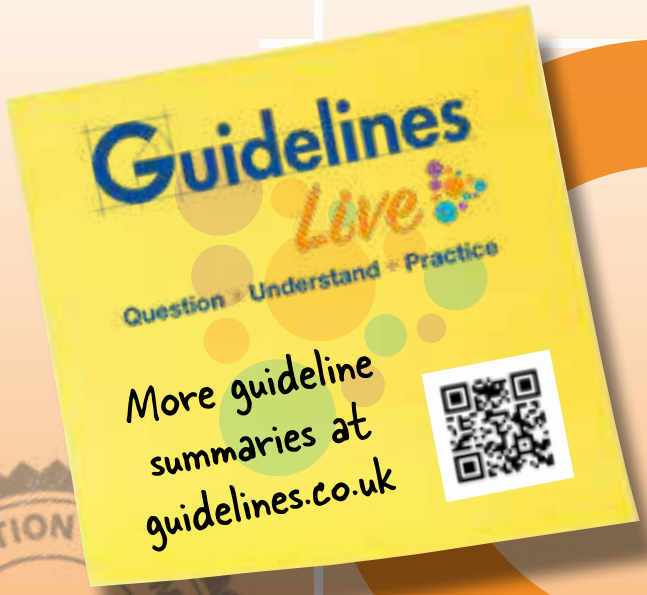
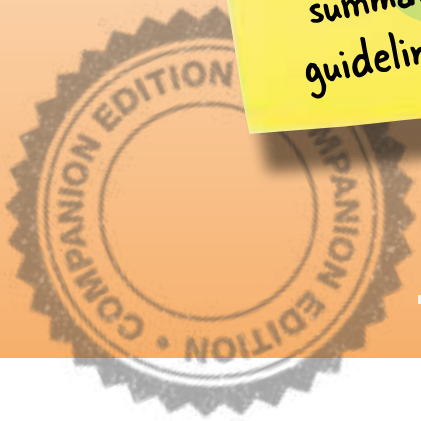
# Guidelines

summarising clinical guidelines for primary care

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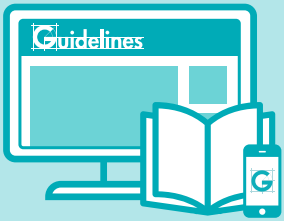


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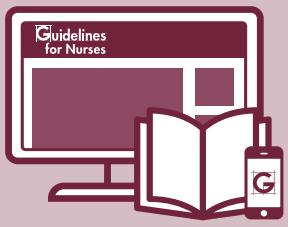


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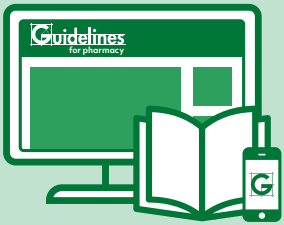


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*Guidelines Live* 2020 brings together over 1000 healthcare professionals from across the UK to experience seminars on the latest clinical guidance for primary care, presented by experts in their respective fields. This year, the event is being delivered to you entirely virtually, thanks to the marvels of technology.

Despite the unusual circumstance, the *Guidelines* and *Guidelines Live* teams have been working to ensure that you are still able to get the most from the conference; even though this year's event is virtual, we are still able to provide you with an abundance of expert sessions and supporting resources to enhance your guidance-focused learning.

Within this special companion *Guidelines* handbook, you will find clinical guideline summaries that are closely aligned with many of the clinical topics discussed by the expert speakers during *Guidelines Live*.

You can use this companion handbook to reference the relevant guidelines during key speaker sessions. To help you do this, we've highlighted the corresponding speaker session at the beginning of each summary contained within this handbook. Alternatively, take time to update your guidance knowledge whenever it suits you, as this digital handbook is available for you to take away and keep. Just email this and other *Guidelines Live* resources to yourself from your delegate bag.

The contents within this companion handbook are just the tip of the iceberg in terms of what we offer at **guidelines.co.uk**. Our website features over 300 clinical guideline summaries that have been produced specifically for primary healthcare professionals and community pharmacy. If you're not already a *Guidelines* member, head over to **guidelines.co.uk/register**—it's completely free if you're a doctor, nurse, or pharmacist.

On behalf of the *Guidelines* team, I hope you find this new virtual way of conferencing an enjoyable learning experience. I look forward to meeting many of you on 17 November at the 'Meet the Editor' sessions, at 11.30 in the Clinical Guidance Networking Lounge, and at 15.00 on the *Guidelines* stand.

With warmest regards,

Sophie Hatton,
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Guidelines Live

Read with Professor Terry McCormack's *Guidelines Live* session on 17 November, 12.05

# Venous thromboembolic diseases: diagnosis, management and thrombophilia testing

NICE

This summary has been abridged for print. View the full summary at **guidelines.co.uk/455308.article**

This *Guidelines* summary covers diagnosis and initial management, outpatient treatment for low-risk pulmonary embolism (PE), and anticoagulation treatment for suspected or confirmed deep vein thrombosis (DVT)

## Diagnosis and initial management

### Signs or symptoms of DVT

- For people who present with signs or symptoms of DVT, such as a swollen or painful leg, assess their general medical history and do a physical examination to exclude other causes
- If DVT is suspected, use the 2-level DVT Wells score (Table 1) to estimate the clinical probability of DVT

### DVT likely (Wells score 2 points or more)

- Offer people with a **likely** DVT Wells score (2 points or more):
  - a proximal leg vein ultrasound scan, with the result available within 4 hours if possible
  - a D-dimer test if the scan result is negative
- If a proximal leg vein ultrasound scan result cannot be obtained within 4 hours, offer people with a DVT Wells score of 2 points or more:
  - a D-dimer test, **then**
  - interim therapeutic anticoagulation **and**
  - a proximal leg vein ultrasound scan with the result available within 24 hours
- For people with a positive proximal leg vein ultrasound scan:
  - offer or continue anticoagulation treatment **or**
  - if anticoagulation treatment is contraindicated, offer a mechanical intervention
- For people with a negative proximal leg vein ultrasound scan and a positive D-dimer test result:
  - stop interim therapeutic anticoagulation
  - offer a repeat proximal leg vein ultrasound scan 6 to 8 days later **and**
    - if the repeat scan result is positive, follow the actions above
    - if the repeat scan result is negative, follow the actions below
- For people with a negative proximal leg vein ultrasound scan and a negative D-dimer test result:
  - stop interim therapeutic anticoagulation
  - think about alternative diagnoses
  - tell the person that it is not likely they have DVT. Discuss with them the signs and symptoms of DVT and when and where to seek further medical help

| Table 1: Two-level DVT Wells score | |
|---|---|
| **Clinical feature** | **Points** |
| Active cancer (treatment ongoing, within 6 months, or palliative) | 1 |
| Paralysis, paresis or recent plaster immobilisation of the lower extremities | 1 |
| Recently bedridden for 3 days or more, or major surgery within 12 weeks requiring general or regional anaesthesia | 1 |
| Localised tenderness along the distribution of the deep venous system | 1 |
| Entire leg swollen | 1 |
| Calf swelling at least 3 cm larger than asymptomatic side | 1 |
| Pitting oedema confined to the symptomatic leg | 1 |
| Collateral superficial veins (non-varicose) | 1 |
| Previously documented DVT | 1 |
| An alternative diagnosis is at least as likely as DVT | -2 |
| **Clinical probability simplified score** | |
| **DVT likely** | **2 points or more** |
| **DVT unlikely** | **1 point or less** |
| Adapted with permission from Wells et al. (2003) Evaluation of D-dimer in the diagnosis of suspected deep-vein thrombosis<br>DVT=deep vein thrombosis. | |

### DVT unlikely (Wells score 1 point or less)

- Offer people with an **unlikely** DVT Wells score (1 point or less):
  - a D-dimer test with the result available within 4 hours **or**
  - if the D-dimer test result cannot be obtained within 4 hours, offer interim therapeutic anticoagulation while awaiting the result
- If the D-dimer test result is negative, follow the actions above
- If the D-dimer test result is positive, offer:
  - a proximal leg vein ultrasound scan, with the result available within 4 hours if possible **or**
  - interim therapeutic anticoagulation and a proximal leg vein ultrasound scan with the result available within 24 hours
- If the proximal leg vein ultrasound scan is:
  - positive, follow the actions above
  - negative, follow the actions above

### D-dimer testing

- When offering D-dimer testing for suspected DVT or PE, consider a point-of-care test if laboratory facilities are not immediately available
- If using a point-of-care D-dimer test, choose a fully quantitative test
- When using a point-of-care or laboratory D-dimer test, consider an age-adjusted D-dimer test threshold for people aged over 50

### Signs or symptoms of PE

- For people who present with signs or symptoms of PE, such as chest pain, shortness of breath or coughing up blood, assess their general medical history, do a physical examination and offer a chest X-ray to exclude other causes

### Pulmonary embolism rule-out criteria (the PERC rule)

- If clinical suspicion of PE is low[A], consider using the pulmonary embolism rule-out criteria (PERC) to help determine whether any further investigations for PE are needed
- If PE is suspected, use the 2-level PE Wells score (Table 2) to estimate the clinical probability of PE

### PE likely (Wells score more than 4 points)

- For people with a **likely** PE Wells score (more than 4 points):
  - offer a computed tomography pulmonary angiogram (CTPA) immediately if possible **or**
  - for people with an allergy to contrast media, severe renal impairment (estimated creatinine clearance[B] less than 30 ml/min) or a high risk from irradiation, assess the suitability of a ventilation/perfusion single photon emission computed tomography (V/Q SPECT) scan or, if a V/Q SPECT scan is not available, a V/Q planar scan, as an alternative to CTPAIf a CTPA, V/Q SPECT or V/Q planar scan cannot be done immediately, offer interim therapeutic anticoagulation (see the section on interim therapeutic anticoagulation for suspected DVT or PE)
- If PE is identified by CTPA, V/Q SPECT or V/Q planar scan:
  - offer or continue anticoagulation treatment **or**
  - if anticoagulation treatment is contraindicated, consider a mechanical intervention

For people with PE and haemodynamic instability see the full guideline section on thrombolytic therapy

- If PE is not identified by CTPA, V/Q SPECT or V/Q planar scan:
  - consider a proximal leg vein ultrasound scan if DVT is suspected
  - if DVT is not suspected:
    - stop interim therapeutic anticoagulation
    - think about alternative diagnoses
    - tell the person that it is not likely they have PE. Discuss with them the signs and symptoms of PE and when and where to seek further medical help

| Table 2: Two-level PE Wells score | |
|---|---|
| **Clinical feature** | **Points** |
| Clinical signs and symptoms of DVT (minimum of leg swelling and pain with palpation of the deep veins) | 3 |
| An alternative diagnosis is less likely than PE | 3 |
| Heart rate more than 100 beats per minute | 1.5 |
| Immobilisation for more than 3 days or surgery in the previous 4 weeks | 1.5 |
| Previous DVT/PE | 1.5 |
| Haemoptysis | 1 |
| Malignancy (on treatment, treated in the last 6 months, or palliative) | 1 |
| **Clinical probability simplified scores** | |
| **PE likely** | **More than 4 points** |
| **PE unlikely** | **4 points or less** |

Adapted with permission from Wells et al. (2000) Derivation of a simple clinical model to categorize patients' probability of pulmonary embolism: increasing the model's utility with the SimpliRED D-dimer

PE=pulmonary embolism.

### PE unlikely (Wells score 4 points or less)

- Offer people with an **unlikely** PE Wells score (4 points or less):
  - a D-dimer test with the result available within 4 hours if possible **or**
  - if the D-dimer test result cannot be obtained within 4 hours, offer interim therapeutic anticoagulation while awaiting the resultIf the D-dimer test result is:
  - positive, follow the actions above
  - negative:
    - stop interim therapeutic anticoagulation
    - think about alternative diagnoses
  - tell the person that it is not likely they have PE. Discuss with them the signs and symptoms of PE and when and where to seek further medical help

### Signs or symptoms of both DVT and PE

- For people who present with signs or symptoms of both DVT and PE, carry out initial diagnostic investigations for either DVT or PE, basing the choice of diagnostic investigations on clinical judgement

## Outpatient treatment for low-risk PE

- Consider outpatient treatment for suspected or confirmed low-risk PE, using a validated risk stratification tool to determine the suitability of outpatient treatment





- When offering outpatient treatment to people with suspected PE, follow recommendations on diagnosis and initial management

- When offering outpatient treatment to people with confirmed PE, follow the recommendations in the section on anticoagulation treatment for confirmed DVT or PE

- Agree a plan for monitoring and follow-up with people having outpatient treatment for suspected or confirmed low-risk PE. Give them:
  - written information on symptoms and signs to look out for, including the potential complications of thrombosis and of treatment
  - direct contact details of a healthcare professional or team with expertise in thrombosis who can discuss any new symptoms or signs, or other concerns
  - information about out-of-hours services they can contact when their healthcare team is not available

## Anticoagulation treatment for suspected or confirmed DVT or PE

- When offering anticoagulation treatment follow the recommendations on shared decision making and supporting adherence in the NICE guidelines on:
  - medicines optimisation
  - medicines adherence
  - patient experience in adult NHS services

### Interim therapeutic anticoagulation for suspected DVT or PE

- Follow the recommendations on when to offer interim therapeutic anticoagulation for suspected proximal DVT or PE in the section on diagnosis and initial management

- If possible, choose an interim anticoagulant that can be continued if DVT or PE is confirmed[C]

- When using interim therapeutic anticoagulation for suspected proximal DVT or PE:
  - carry out baseline blood tests including full blood count, renal and hepatic function, prothrombin time (PT) and activated partial thromboplastin time (APTT)
  - do not wait for the results of baseline blood tests before starting anticoagulation treatment
  - review, and if necessary act on, the results of baseline blood tests within 24 hours of starting interim therapeutic anticoagulation

### Anticoagulation treatment for confirmed DVT or PE

- Offer anticoagulation treatment for at least 3 months to people with confirmed proximal DVT or PE. For recommendations on treatment after 3 months see the full guideline section on long-term anticoagulation for secondary prevention

- If not already done, carry out baseline blood tests when starting anticoagulation treatment

- When offering anticoagulation treatment, take into account comorbidities, contraindications and the person's preferences

Follow the recommendations (in the full guideline) on anticoagulation treatment in the sections on:

- DVT or PE in people at extremes of body weight

- PE with haemodynamic instability

- DVT or PE with renal impairment or established renal failure (also see below)

- DVT or PE with active cancer

- DVT or PE with triple positive antiphospholipid syndrome

- Offer either apixaban or rivaroxaban to people with confirmed proximal DVT or PE (but see recommendations 1.3.11 to 1.3.20 in the full guideline for people with any of the clinical features listed here). If neither apixaban nor rivaroxaban is suitable offer:
  - low molecular weight heparin (LMWH) for at least 5 days followed by dabigatran or edoxaban **or**
  - LMWH concurrently with a vitamin K antagonist (VKA) for at least 5 days, or until the INR is at least 2.0 in 2 consecutive readings, followed by a VKA on its own

- Do not routinely offer unfractionated heparin (UFH) with a VKA to treat confirmed proximal DVT or PE unless the person has renal impairment or established renal failure (see Anticoagulation treatment for DVT or PE with renal impairment or established renal failure, below) or an increased risk of bleeding

- Do not routinely offer self-management or self-monitoring of INR to people who have had DVT or PE and are having treatment with a VKA

### Treatment failure

- If anticoagulation treatment fails:
  - check adherence to anticoagulation treatment
  - address other sources of hypercoagulability
  - increase the dose of anticoagulant or change to an anticoagulant with a different mode of action

## Mechanical interventions

### Elastic graduated compression stockings

- Do not offer elastic graduated compression stockings to prevent post-thrombotic syndrome or VTE recurrence after a DVT. This recommendation does not cover the use of elastic stockings for the management of leg symptoms after DVT

- If offering elastic graduated compression stockings to manage leg symptoms after DVT, explain how to apply and use them, how long they should be worn and when they should be replaced

## Footnotes

[A] The clinician estimates the likelihood of PE to be less than 15% based on the overall clinical impression and other diagnoses are feasible

[B] Estimated creatinine clearance using the Cockcroft and Gault formula; see the BNF's prescribing in renal impairment

[C] At the time of publication (March 2020) direct-acting anticoagulants and some low molecular weight heparins do not have a UK marketing authorisation for the treatment of suspected DVT or PE. The prescriber should follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's Prescribing guidance: prescribing unlicensed medicines for further information

[D] At the time of publication (March 2020) some low molecular weight heparins do not have a UK marketing authorisation for the treatment of DVT or PE in people with severe renal impairment (estimated creatinine clearance 15 ml/min to 30 ml/min) or established renal failure (estimated creatinine clearance less than 15 ml/min). The prescriber should consult the medicine's summary of product characteristics for details, and follow relevant professional guidance, taking full responsibility for the decision. Informed consent should be obtained and documented. See the General Medical Council's Prescribing guidance: prescribing unlicensed medicines for further information



Published date: 26 March 2020.

# Chronic heart failure in adults: diagnosis and management

NICE

View this summary online at **guidelines.co.uk/454369.article**

## Team working in the management of heart failure

- The core specialist heart failure multidisciplinary team (MDT) should work in collaboration with the primary care team, and should include:
  - a lead physician with subspecialty training in heart failure (usually a consultant cardiologist) who is responsible for making the clinical diagnosis
  - a specialist heart failure nurse
  - a healthcare professional with expertise in specialist prescribing for heart failure

- The specialist heart failure MDT should:
  - diagnose heart failure
  - give information to people newly diagnosed with heart failure
  - manage newly diagnosed, recently decompensated or advanced heart failure (NYHA [New York Heart Association] class III to IV)
  - optimise treatment
  - start new medicines that need specialist supervision
  - continue to manage heart failure after an interventional procedure such as implantation of a cardioverter defibrillator or cardiac resynchronisation device
  - manage heart failure that is not responding to treatment

- The specialist heart failure MDT should directly involve, or refer people to, other services, including rehabilitation, services for older people and palliative care services, as needed

- The primary care team should carry out the following for people with heart failure at all times, including periods when the person is also receiving specialist heart failure care from the MDT:
  - ensure effective communication links between different care settings and clinical services involved in the person's care
  - lead a full review of the person's heart failure care, which may form part of a long-term conditions review
  - recall the person at least every 6 months and update the clinical record
  - ensure that changes to the clinical record are understood and agreed by the person with heart failure and shared with the specialist heart failure MDT
  - arrange access to specialist heart failure services if needed

### Care after an acute event

- For recommendations on the diagnosis and management of acute heart failure see NICE's guideline on acute heart failure

- People with heart failure should generally be discharged from hospital only when their clinical condition is stable and the management plan is optimised. Timing of discharge should take into account the

wishes of the person and their family or carer, and the level of care and support that can be provided in the community

- The primary care team should take over routine management of heart failure as soon as it has been stabilised and its management optimised

### Writing a care plan

- The specialist heart failure MDT should write a summary for each person with heart failure that includes:
  - diagnosis and aetiology
  - medicines prescribed, monitoring of medicines, when medicines should be reviewed and any support the person needs to take the medicines
  - functional abilities and any social care needs
  - social circumstances, including carers' needs
- The summary should form the basis of a care plan for each person, which should include:
  - plans for managing the person's heart failure, including follow-up care, rehabilitation and access to social care
  - symptoms to look out for in case of deterioration
  - a process for any subsequent access to the specialist heart failure MDT if needed
  - contact details for a named healthcare coordinator (usually a specialist heart failure nurse)
  - alternative local heart failure specialist care providers, for urgent care or review
  - additional sources of information for people with heart failure
- Give a copy of the care plan to the person with heart failure, their family or carer if appropriate, and all health and social care professionals involved in their care

## Diagnosing heart failure

### Symptoms, signs and investigations

- Take a careful and detailed history, and perform a clinical examination and tests to confirm the presence of heart failure
- Measure N-terminal pro-B-type natriuretic peptide (NT-proBNP) in people with suspected heart failure
- Because very high levels of NT-proBNP carry a poor prognosis, refer people with suspected heart failure and an NT-proBNP level above 2,000 ng/litre (236 pmol/litre) urgently, to have specialist assessment and transthoracic echocardiography within 2 weeks
- Refer people with suspected heart failure and an NT-proBNP level between 400 and 2,000 ng/litre (47 to 236 pmol/litre) to have specialist assessment and transthoracic echocardiography within 6 weeks

## Giving information to people with heart failure

- When giving information to people with heart failure, follow the recommendations in the NICE guideline on patient experience in adult NHS services
- Discuss the person's prognosis in a sensitive, open and honest manner. Be frank about the uncertainty in predicting the course of their heart failure. Revisit this discussion as the person's condition evolves
- Provide information whenever needed throughout the person's care
- Consider training in advanced communication skills for all healthcare professionals working with people who have heart failure

### First consultations for people newly diagnosed with heart failure

- The specialist heart failure MDT should offer people newly diagnosed with heart failure an extended first consultation, followed by a second consultation to take place within 2 weeks if possible. At each consultation:
  - discuss the person's diagnosis and prognosis
  - explain heart failure terminology
  - discuss treatments
  - address the risk of sudden death, including any misconceptions about that risk encourage the person and their family or carers to ask any questions they have

## Treating heart failure with reduced ejection fraction

- When managing pharmacological treatment, follow the recommendations in the NICE guidelines on medicines adherence and medicines optimisation

### First-line treatment

- Offer an angiotensin-converting enzyme (ACE) inhibitor and a beta-blocker licensed for heart failure to people who have heart failure with reduced ejection fraction. Use clinical judgement when deciding which drug to start first

#### ACE inhibitors

- Do not offer ACE inhibitor therapy if there is a clinical suspicion of haemodynamically significant valve disease until the valve disease has been assessed by a specialist
- Start ACE inhibitor therapy at a low dose and titrate upwards at short intervals (for example, every 2 weeks) until the target or maximum tolerated dose is reached
- Measure serum sodium and potassium, and assess renal function, before and 1 to 2 weeks after starting an ACE inhibitor, and after each dose increment
- Measure blood pressure before and after each dose increment of an ACE inhibitor. Follow the recommendations on measuring blood pressure, including measurement in people with symptoms of postural hypotension, in the NICE guideline on hypertension in adults
- Once the target or maximum tolerated dose of an ACE inhibitor is reached, monitor treatment monthly for 3 months and then at least every 6 months, and at any time the person becomes acutely unwell

#### Alternative treatments if ACE inhibitors are not tolerated

- Consider an ARB licensed for heart failure as an alternative to an ACE inhibitor for people who have heart failure with reduced ejection fraction and intolerable side effects with ACE inhibitors
- Measure serum sodium and potassium, and assess renal function, before and after starting an ARB and after each dose increment
- Measure blood pressure after each dose increment of an ARB. Follow the recommendations on measuring blood pressure, including measurement in people with symptoms of postural hypotension, in the NICE guideline on hypertension in adults
- Once the target or maximum tolerated dose of an ARB is reached, monitor treatment monthly for 3 months and then

at least every 6 months, and at any time the person becomes acutely unwell

- If neither ACE inhibitors nor ARBs are tolerated, seek specialist advice and consider hydralazine in combination with nitrate for people who have heart failure with reduced ejection fraction

**Beta-blockers**

- Do not withhold treatment with a beta-blocker solely because of age or the presence of peripheral vascular disease, erectile dysfunction, diabetes, interstitial pulmonary disease or chronic obstructive pulmonary disease

- Introduce beta-blockers in a 'start low, go slow' manner. Assess heart rate and clinical status after each titration. Measure blood pressure before and after each dose increment of a beta-blocker

- Switch people whose condition is stable and who are already taking a beta-blocker for a comorbidity (for example, angina or hypertension), and who develop heart failure with reduced ejection fraction, to a beta-blocker licensed for heart failure

**Mineralocorticoid receptor antagonists**

- Offer an MRA, in addition to an ACE inhibitor (or ARB) and beta-blocker, to people who have heart failure with reduced ejection fraction if they continue to have symptoms of heart failure

- Measure serum sodium and potassium, and assess renal function, before and after starting an MRA and after each dose increment

- Measure blood pressure before and after after each dose increment of an MRA. Follow the recommendations on measuring blood pressure, including measurement in people with symptoms of postural hypotension, in the NICE guideline on hypertension in adults

- Once the target, or maximum tolerated, dose of an MRA is reached, monitor treatment monthly for 3 months and then at least every 6 months, and at any time the person becomes acutely unwell

## Specialist treatment

**Ivabradine**

- These recommendations are from NICE's technology appraisal guidance on ivabradine for treating chronic heart failure

- Ivabradine is recommended as an option for treating chronic heart failure for people:
  - with New York Heart Association (NYHA) class II to IV stable chronic heart failure with systolic dysfunction **and**
  - who are in sinus rhythm with a heart rate of 75 beats per minute (bpm) or more **and**
  - who are given ivabradine in combination with standard therapy including beta-blocker therapy, angiotensin-converting enzyme (ACE) inhibitors and aldosterone antagonists, or when beta-blocker therapy is contraindicated or not tolerated **and**
  - with a left ventricular ejection fraction of 35% or less

- Ivabradine should only be initiated after a stabilisation period of 4 weeks on optimised standard therapy with ACE inhibitors, beta-blockers and aldosterone antagonists

- Ivabradine should be initiated by a heart failure specialist with access to a multidisciplinary heart failure team. Dose titration and monitoring should be carried out by a heart failure specialist, or in primary care by either a GP with a special interest in heart failure or a heart failure specialist nurse

### Sacubitril valsartan

- These recommendations are from NICE's technology appraisal guidance on sacubitril valsartan for treating symptomatic chronic heart failure with reduced ejection fraction
- Sacubitril valsartan is recommended as an option for treating symptomatic chronic heart failure with reduced ejection fraction, only in people:
  - with New York Heart Association (NYHA) class II to IV symptoms **and** with a left ventricular ejection fraction of 35% or less **and**
  - who are already taking a stable dose of angiotensin-converting enzyme (ACE) inhibitors or ARBs
- Treatment with sacubitril valsartan should be started by a heart failure specialist with access to a multidisciplinary heart failure team. Dose titration and monitoring should be performed by the most appropriate team member as defined in NICE's guideline on chronic heart failure in adults: diagnosis and management[A]
- This guidance is not intended to affect the position of patients whose treatment with sacubitril valsartan was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop

### Hydralazine in combination with nitrate

- Seek specialist advice and consider offering hydralazine in combination with nitrate (especially if the person is of African or Caribbean family origin and has moderate to severe heart failure [NYHA class III/IV] with reduced ejection fraction)

### Digoxin

- For recommendations on digoxin for people with atrial fibrillation see rate and rhythm control in the NICE guideline on atrial fibrillation
- Digoxin is recommended for worsening or severe heart failure with reduced ejection fraction despite first-line treatment for heart failure. Seek specialist advice before initiating
- Routine monitoring of serum digoxin concentrations is not recommended. A digoxin concentration measured within 8 to 12 hours of the last dose may be useful to confirm a clinical impression of toxicity or non-adherence
- The serum digoxin concentration should be interpreted in the clinical context as toxicity may occur even when the concentration is within the 'therapeutic range'

## Managing all types of heart failure

- When managing pharmacological treatment, follow the recommendations in the NICE guidelines on medicines adherence and medicines optimisation

### Pharmacological treatment

#### Diuretics

- Diuretics should be routinely used for the relief of congestive symptoms and fluid retention in people with heart failure, and titrated (up and down) according to need following the initiation of subsequent heart failure therapies
- People who have heart failure with preserved ejection fraction should usually be offered a low to medium dose of loop diuretics (for example, less than 80 mg furosemide per day). People whose heart failure does not respond to this treatment will need further specialist advice

#### Calcium-channel blockers

- Avoid verapamil, diltiazem and short-acting dihydropyridine agents in people who have heart failure with reduced ejection fraction

#### Amiodarone

- Make the decision to prescribe amiodarone in consultation with a specialist
- Review the need to continue the amiodarone prescription at the 6-monthly clinical review
- Offer people taking amiodarone liver and thyroid function tests, and a review of side effects, as part of their routine 6-monthly clinical review

#### Anticoagulants

- For people who have heart failure and atrial fibrillation, follow the recommendations on anticoagulation in the NICE guideline on atrial fibrillation. Be aware of the effects of impaired renal and liver function on anticoagulant therapies
- In people with heart failure in sinus rhythm, anticoagulation should be considered for those with a history of thromboembolism, left ventricular aneurysm or intracardiac thrombus

#### Vaccinations

- Offer people with heart failure an annual vaccination against influenza
- Offer people with heart failure vaccination against pneumococcal disease (only required once)

#### Contraception and pregnancy

- In women of childbearing potential who have heart failure, contraception and pregnancy should be discussed. If pregnancy is being considered or occurs, specialist advice should be sought. Subsequently, specialist care should be shared between the cardiologist and obstetrician

#### Depression

- See NICE's guideline on depression in adults with a chronic physical health problem

#### Lifestyle advice

##### *Salt and fluid restriction*

- Do not routinely advise people with heart failure to restrict their sodium or fluid consumption. Ask about salt and fluid consumption and, if needed, advise as follows:
  - restricting fluids for people with dilutional hyponatraemia
  - reducing intake for people with high levels of salt and/or fluid consumption
- Continue to review the need to restrict salt or fluid
- Advise people with heart failure to avoid salt substitutes that contain potassium

##### *Smoking and alcohol*

- See NICE's guidance on smoking and tobacco and alcohol

##### *Air travel*

- Air travel will be possible for the majority of people with heart failure, depending on their clinical condition at the time of travel



CARDIOVASCULAR

***Driving***

- Large Goods Vehicle and Passenger Carrying Vehicle licence: physicians should be up to date with the latest Driver and Vehicle Licensing Agency guidelines. Check the DVLA website for regular updates

## Monitoring treatment for all types of heart failure

### Clinical review

- All people with chronic heart failure need monitoring. This monitoring should include:
  - a clinical assessment of functional capacity, fluid status, cardiac rhythm (minimum of examining the pulse), cognitive status and nutritional status
  - a review of medication, including need for changes and possible side effects an assessment of renal function[B]

- More detailed monitoring will be needed if the person has significant comorbidity or if their condition has deteriorated since the previous review

- The frequency of monitoring should depend on the clinical status and stability of the person. The monitoring interval should be short (days to 2 weeks) if the clinical condition or medication has changed, but is needed at least 6-monthly for stable people with proven heart failure

- People with heart failure who wish to be involved in monitoring of their condition should be provided with sufficient education and support from their healthcare professional to do this, with clear guidelines as to what to do in the event of deterioration

### Measuring NT-proBNP

- Consider measuring NT-proBNP (N-terminal pro-B-type natriuretic peptide) as part of a treatment optimisation protocol only in a specialist care setting for people aged under 75 who have heart failure with reduced ejection fraction and an eGFR above 60 ml/min/1.73 $m^2$

## Footnotes

[A] See team working in the management of heart failure in this guideline† This is a minimum. People with comorbidities or co-prescribed medications will need further monitoring. Monitoring serum potassium is particularly important if a person is taking digoxin or an MRA.

[B] This is a minimum. People with comorbidities or co-prescribed medications will need further monitoring. Monitoring serum potassium is particularly important if a person is taking digoxin or an MRA.

Guidelines Live

Read with Professor Robert Stockley's *Guidelines Live* session on 18 November, 11.05

# COPD diagnosis, management and prevention—2020 strategy

Global Initiative for Chronic Obstructive Lung Disease

- **Download the full GOLD strategy for chronic obstructive pulmonary disease (COPD):**[1]
  - *Pocket guide to COPD diagnosis, management, and prevention: a guide for health care professionals* **goldcopd.org/wp-content/uploads/2019/11/GOLD-Pocket-Guide-2020-final-wms.pdf**
  - *Global strategy for the diagnosis, management, and prevention of COPD* **goldcopd.org/wp-content/uploads/2019/12/GOLD-2020-FINAL-ver1.2-03Dec19_WMV.pdf**

## Diagnosis

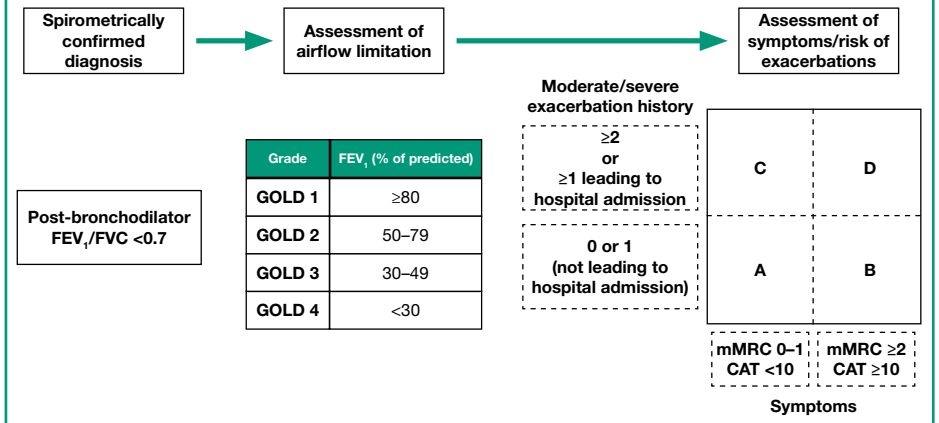
- COPD should be considered in any patient who has dyspnea, chronic cough or sputum production, a history of recurrent lower respiratory tract infections and/or a history of exposure to risk factors for the disease

### Key indicators for considering a diagnosis of COPD

Consider COPD, and perform spirometry, if any of these indicators are present in an individual over age 40. These indicators are not diagnostic themselves, but the presence of multiple key indicators increases the probability of a diagnosis of COPD. Spirometry is required to establish a diagnosis of COPD:

- Dyspnoea that is:
  - progressive over time
  - characteristically worse with exercise
  - persistent
- Chronic cough:
  - may be intermittent and may be unproductive
  - recurrent wheeze
- Chronic sputum production:
  - any pattern of chronic sputum production may indicate COPD
- Recurrent lower respiratory tract infections
- History of risk factors:
  - host factors (such as genetic factors, congenital/developmental abnormalities, etc)
  - tobacco smoke (including popular local preparations)
  - smoke from home cooking and heating fuels
  - occupational dusts, vapours, fumes, gases, and other chemicals
- Family history of COPD and/or childhood factors:
  - for example, low birthweight, childhood respiratory infection, etc

**Figure 1: The refined ABCD assessment tool**




$FEV_1$=forced expiratory volume in the first second; FVC=forced vital capacity; mMRC=modified Medical Research Council dyspnoea questionaire; CAT=COPD assessment test.

## Assessment

### Classification of airflow limitation severity in COPD (based on post-bronchodilator $FEV_1$)

- In patients with $FEV_1/FVC < 0.70$:
  - GOLD 1—mild: $FEV_1 \geq 80\%$ predicted
  - GOLD 2—moderate: $50\% \leq FEV_1 < 80\%$ predicted
  - GOLD 3—severe: $30\% \leq FEV_1 < 50\%$ predicted
  - GOLD 4—very severe: $FEV_1 < 30\%$ predicted

### Revised combined COPD assessment

- In the revised assessment scheme (see Figure 1), patients should undergo spirometry to determine the severity of airflow limitation (i.e., spirometric grade). They should also undergo assessment of either dyspnoea using modified Medical Research Council (mMRC), or symptoms using COPD assessment test (CAT™). Finally, their history of exacerbations (including prior hospitalisations) should be recorded
- The number provides information regarding severity of airflow limitation (spirometric grade 1 to 4) while the letter (groups A to D) provides information regarding symptom burden and risk of exacerbation which can be used to guide therapy
- Example: Consider two patients—both patients with $FEV_1$ <30% of predicted, CAT™ scores of 18 and one with no exacerbations in the past year and the other with three exacerbations in the past year. Both would have been labelled GOLD D in the prior classification scheme. However, with the new proposed scheme, the subject with three exacerbations in the past year would be labelled GOLD grade 4, group D
- Refer to Table 1 for a list of differential diagnoses

## Management of stable COPD

- The management strategy for stable COPD should be predominantly based on the individualised assessment of symptoms and future risk of exacerbations
- All individuals who smoke should be strongly encouraged and supported to quit
- The main treatment goals are reduction of symptoms and future risk of exacerbations
- Management strategies include pharmacological and non-pharmacological interventions.

### A. Pharmacological treatment

#### 1. Initial treatment

- See Figure 2 for an overview of initial pharmacological treatment
- Rescue short-acting bronchodilators should be prescribed to all patients for immediate symptom relief
- Group A:
  - all Group A patients should be offered bronchodilator treatment based on its effect on breathlessness. This can be either a short- or a long-acting bronchodilator
  - this should be continued if benefit is documented
- Group B:
  - initial therapy should consist of a long-acting bronchodilator
  - for patients with severe breathlessness initial therapy with two bronchodilators may be considered

**Table 1: Differential diagnosis of COPD**

| DIAGNOSIS | SUGGESTIVE FEATURES |
|---|---|
| COPD | Onset in mid-life<br>Symptoms slowly progressive<br>History of tobacco smoking or exposure to other types of smoke |
| Asthma | Onset early in life (often childhood)<br>Symptoms vary widely from day to day<br>Symptoms worse at night/early morning<br>Allergy, rhinitis, and/or eczema also present<br>Family history of asthma<br>Obesity coexistence |
| Congestive heart failure | Chest X-ray shows dilated heart, pulmonary oedema.<br>Pulmonary function tests indicate volume restriction, not airflow limitation |
| Bronchiectasis | Large volumes of purulent sputum<br>Commonly associated with bacterial infection<br>Chest X-ray/CT shows bronchial dilation, bronchial wall thickening. |
| Tuberculosis | Onset all ages<br>Chest X-ray shows lung infiltrate<br>Microbiological confirmation<br>High local prevalence of tuberculosis |
| Obliterative bronchiolitis | Onset at younger age, non-smokers<br>May have history of rheumatoid arthritis or acute fume exposure<br>Seen after lung or bone marrow transplantation<br>CT on expiration shows hypodense areas |
| Diffuse panbronchiolitis | Predominantly seen in patients of Asian descent<br>Most patients are male and non-smokers<br>Almost all have chronic sinusitis<br>Chest X-ray and high-resolution computed tomography show diffuse small centrilobular nodular opacities and hyperinflation |

These features tend to be characteristic of the respective diseases, but are not mandatory. For example, a person who has never smoked may develop COPD (especially in the developing world where other risk factors may be more important than cigarette smoking); asthma may develop in adult and even in elderly patients.

**Figure 2: Initial pharmacological treatment**

| | | |
|---|---|---|
| **≥2 moderate exacerbations or ≥1 leading to hospitalisation** | **Group C**<br>LAMA | **Group D**<br>LAMA or<br>LAMA + LABA[A] or<br>ICS + LABA[B]<br>[A]Consider if highly symptomatic (e.g. CAT >20)<br>[B]Consider if eos ≥300 |
| **0 or 1 moderate exacerbations (not leading to hospital admission)** | **Group A**<br>A Bronchodilator | **Group B**<br>A Long Acting Bronchodilator (LABA or LAMA) |
| | mMRC 0–1 CAT <10 | mMRC ≥2 CAT ≥10 |

LAMA=long-acting muscarinic receptor antagonists; LABA=long-acting beta$_2$ agonist; ICS=inhaled corticosteroids; CAT=COPD assessment test; COPD=chronic obstructive pulmonary disease; eos=blood eosinophil count in cells per microlitre; mMRC=modified Medical Research Council dyspnoea questionnaire.

- Group C:
  - initial therapy should consist of a LAMA
- Group D:
  - in general, therapy can be started with a LAMA as it has effects on both breathlessness and exacerbations
  - for patients with more severe symptoms (order of magnitude of CAT™ ≥20), especially driven by greater dyspnoea and/or exercise limitation, LAMA/LABA may be chosen as initial treatment
  - in some patients, initial therapy with LABA/ICS may be the first choice; this treatment has the greatest likelihood of reducing exacerbations in patients with blood eosinophil counts ≥300 cells/µl. LABA/ICS may also be first choice in COPD patients with a history of asthma
  - ICS may cause side-effects such as pneumonia, so should be used as initial therapy only after the possible clinical benefits versus risks have been considered

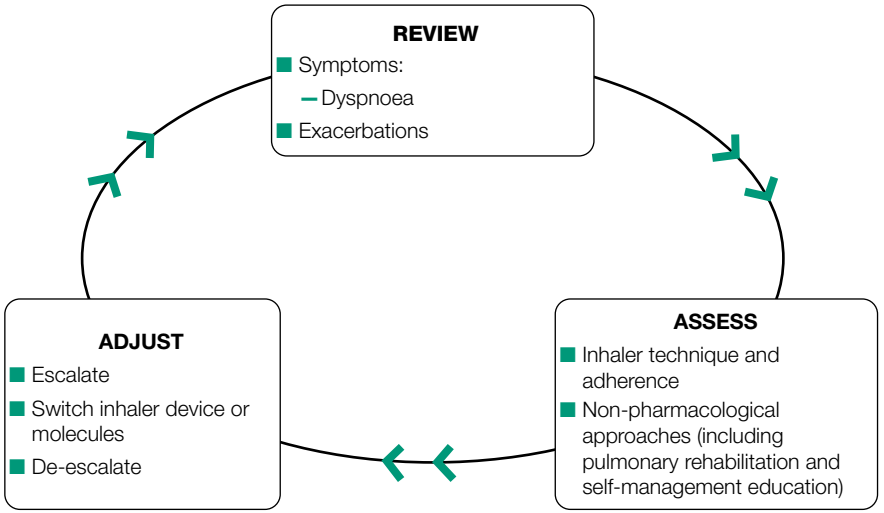
**2. Management cycle**

- Following implementation of therapy, patients should be reassessed for attainment of treatment goals and identification of any barriers for successful treatment (see Figure 3). Following review of the patient response to treatment initiation, adjustments in pharmacological treatment may be needed

**3. Follow-up pharmacological management**

- The follow-up pharmacological treatment algorithm (see Figure 4) can be applied to any patient who is already taking maintenance treatment(s) irrespective of the GOLD group allocated at treatment initiation. The need to treat primarily dyspnoea/exercise limitation or prevent exacerbations further should be evaluated. If a change in treatment is considered necessary then select the corresponding algorithm for dyspnoea or exacerbations; the exacerbation algorithm should also be used for patients who require a change in treatment for both dyspnoea

**Figure 3: GOLD COPD management cycle**




and exacerbations. Identify which box corresponds to the patient's the current treatment

*Dyspnoea*

- For patients with persistent breathlessness or exercise limitation on long-acting bronchodilator monotherapy, the use of two bronchodilators is recommended:
  - if the addition of a second long acting bronchodilator does not improve symptoms, we suggest the treatment could be stepped down again to monotherapy. Switching inhaler device or molecules can also be considered
- For patients with persistent breathlessness or exercise limitation on LABA/ICS treatment, LAMA can be added to escalate to triple therapy:
  - alternatively, switching from LABA/ICS to LABA/LAMA should be considered if the original indication for ICS was inappropriate (e.g. an ICS was used to treat symptoms in the absence of a history of exacerbations), or there has been a lack of response to ICS treatment, or if ICS side-effects warrant discontinuation
- At all stages, dyspnoea due to other causes (not COPD) should be investigated and treated appropriately. Inhaler technique and adherence should be considered as causes of inadequate treatment response

*Exacerbations*

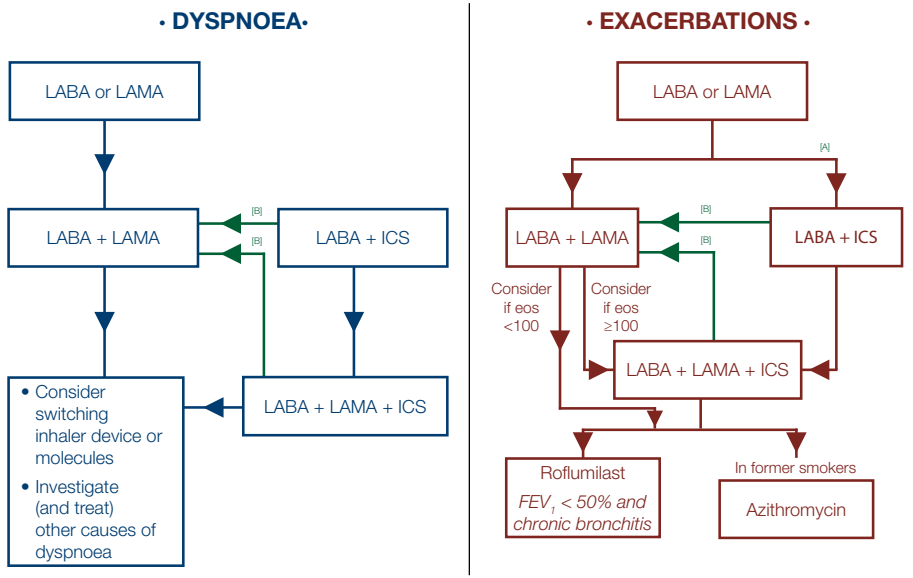
- For patients with persistent exacerbations on long-acting bronchodilator monotherapy, escalation to either LABA/LAMA or LABA/ICS is recommended. LABA/ICS may be preferred for patients with a history or findings suggestive of asthma. Blood eosinophil counts may identify patients with a greater likelihood of a beneficial response to ICS. For patients with one exacerbation per year, a peripheral blood level ≥300 eosinophils/µl identifies patients more likely to respond to LABA/ICS treatment





**Figure 4: Follow-up pharmacological treatment**

1. **IF RESPONSE TO INITIAL TREATMENT IS APPROPRIATE, MAINTAIN IT.**
2. **IF NOT:** ✓ Consider the predominant treatable trait to target (dyspnoea or exacerbations)
   - Use exacerbation pathway if both exacerbations and dyspnoea need to be targeted
   - ✓ Place patient in box corresponding to current treatment and follow indications
   - ✓ Assess response, adjust and review
   - ✓ These recommendations do not depend on the ABCD assessment at diagnosis




eos=blood eosinophil count (cells/µl)
[A] Consider if eos ≥300 or eos ≥100 AND ≥2 moderate exacerbations/1 hospitalisation
[B] Consider de-escalation of ICS or switch if pneumonia, inappropriate original indication or lack of response to ICS.

- For patients with ≥2 moderate exacerbations per year or at least one severe exacerbation requiring hospitalisation in the prior year, LABA/ICS treatment can be considered at blood eosinophil counts ≥100 cells/µl, as ICS effects are more pronounced in patients with greater exacerbation frequency and/or severity
- In patients who develop further exacerbations on LABA/LAMA therapy we suggest two alternative pathways:
  - escalation to LABA/LAMA/ICS. A beneficial response after the addition of ICS may be observed at blood eosinophil counts ≥100 cells/µl, with a greater magnitude of response more likely with higher eosinophil counts
  - add roflumilast or azithromycin (see below) if blood eosinophils <100 cells/µl
- In patients who develop further exacerbations on LABA/ICS therapy, we recommend escalation to triple therapy by adding a LAMA. Alternatively, treatment can be switched to LABA/LAMA if there has been a lack of response to ICS treatment, or if ICS side effects warrant discontinuation

- In patients treated with LABA/LAMA/ICS who still have exacerbations the following options may be considered:
  - add roflumilast. This may be considered in patients with an $FEV_1$ <50% predicted and chronic bronchitis, particularly if they have experienced at least one hospitalisation for an exacerbation in the previous year
  - add a macrolide. The best available evidence exists for the use of azithromycin, especially in those who are not current smokers. Consideration to the development of resistant organisms should be factored into decision-making.
  - stopping ICS. This can be considered if there are adverse effects (such as pneumonia) or a reported lack of efficacy. However, a blood eosinophil count ≥300 cells/µl identifies patients with the greatest likelihood of experiencing more exacerbations after ICS withdrawal and who subsequently should be followed closely for relapse of exacerbations

*Blood eosinophil count*

- The threshold of a blood eosinophil count ≥300 cells/µl identifies the top of the continuous relationship between eosinophils and ICS, and can be used to identify patients with the greatest likelihood of treatment benefit with ICS
- The use of blood eosinophil counts to predict ICS effects should always be combined with clinical assessment of exacerbation risk (as indicated by the previous history of exacerbations)

## B. Non-pharmacological treatment

- Non-pharmacological treatment is complementary to pharmacological treatment and should form part of the comprehensive management of COPD
- Some relevant non-pharmacological measures based on the GOLD group **AT DIAGNOSIS** are summarised in Table 2

**Education, self-management and pulmonary rehabilitation**

- Education is needed to change patients' knowledge but there is no evidence that used alone it will change patient behaviour
- Education self-management with the support of a case manager with or without the use of a written action plan is recommended for the prevention of exacerbation complications such as hospital admissions
- Rehabilitation is indicated in all patients with relevant symptoms and/or a high risk for exacerbation
- Physical activity is a strong predictor of mortality. Patients should be encouraged to increase the level of physical activity although we still don't know how to best ensure the likelihood of success

**Vaccination**

- Influenza vaccination is recommended for all patients with COPD
- Pneumococcal vaccinations PCV13 and PPSV23, are recommended for all patients >65 years of age. The PPSV23 is also recommended for younger patients with significant comorbid conditions including chronic heart or lung disease

**Nutrition**

- Nutritional supplementation should be considered in malnourished patients with COPD





**Table 2: Non-pharmacological management of COPD[A]**

| PATIENT GROUP | ESSENTIAL | RECOMMENDED | DEPENDING ON LOCAL GUIDELINES |
|---|---|---|---|
| A | Smoking cessation (can include pharmacological treatment) | Physical activity | Flu vaccination<br>Pneumococcal vaccination |
| B, C and D | Smoking cessation (can include pharmacological treatment)<br>Pulmonary rehabilitation | Physical activity | Flu vaccination<br>Pneumococcal vaccination |

[A] Can include pharmacological treatment

**End of life and palliative care**

- All clinicians managing patients with COPD should be aware of the effectiveness of palliative approaches to symptom control and use these in their practice
- End of life care should include discussions with patients and their families about their views on resuscitation, advance directives and place of death preferences

**Treatment of hypoxemia**

- In patients with severe resting hypoxemia long-term oxygen therapy is indicated
- In patients with stable COPD and resting or exercise-induced moderate desaturation, long term oxygen treatment should not be routinely prescribed. However, individual patient factors may be considered when evaluating the patient's needs for supplemental oxygen
- Resting oxygenation at sea level does not exclude the development of severe hypoxemia when travelling by air

**Treatment of hypercapnia**

- In patients with severe chronic hypercapnia and a history of hospitalisation for acute respiratory failure, long term noninvasive ventilation may be considered

**Interventional bronchoscopy and surgery**

- Please refer to the full strategy at **goldcopd.org** for recommendations on interventional therapy

## Management of exacerbations

- An exacerbation of COPD is defined as an acute worsening of respiratory symptoms that results in additional therapy
- As the symptoms are not specific to COPD relevant differential diagnoses should be considered
- Exacerbations of COPD can be precipitated by several factors. The most common causes are respiratory tract infections
- The goal for treatment of COPD exacerbations is to minimise the negative impact of the current exacerbation and to prevent subsequent events
- Short-acting inhaled $beta_2$-agonists, with or without short-acting anticholinergics, are recommended as the initial bronchodilators to treat an acute exacerbation
- Maintenance therapy with long-acting bronchodilators should be initiated as soon as possible before hospital discharge

- Systemic corticosteroids can improve lung function ($FEV_1$), oxygenation and shorten recovery time and hospitalisation duration. Duration of therapy should not be more than 5–7 days
- Antibiotics, when indicated, can shorten recovery time, reduce the risk of early relapse, treatment failure, and hospitalisation duration. Duration of therapy should be 5–7 days
- Methylxanthines are not recommended due to increased side-effect profiles
- Non-invasive mechanical ventilation should be the first mode of ventilation used in COPD patients with acute respiratory failure who have no absolute contraindication because it improves gas exchange, reduces work of breathing and the need for intubation, decreases hospitalisation duration and improves survival
- Following an exacerbation, appropriate measures for exacerbation prevention should be initiated

## COPD and comorbidities

- COPD often coexists with other diseases (comorbidities) that may have a significant impact on disease course
- In general, the presence of comorbidities should not alter COPD treatment and comorbidities should be treated per usual standards regardless of the presence of COPD
- Lung cancer is frequently seen in patients with COPD and is a main cause of death
- Cardiovascular diseases are common and important comorbidities in COPD
- Osteoporosis and depression/anxiety are frequent, important comorbidities in COPD, are often under diagnosed, and are associated with poor health status and prognosis
- Gastroesophageal reflux is associated with an increased risk of exacerbations and poorer health status
- When COPD is part of a multimorbidity care plan, attention should be directed to ensure simplicity of treatment and to minimise polypharmacy

## Footnote

[1] Recommendations by the GOLD Committees for use of any medication are based on the best evidence available from the published literature and not on labeling directives from government regulators. The Committee does not make recommendations for therapies that have not been approved by at least one major regulatory agency.

Global Initiative for Chronic Obstructive Lung Disease. *Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease—2020 report.* November 2019

**goldcopd.org**

Published date: 2015

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Guidelines Live

Read with Dr Anthony Cunliffe's *Guidelines Live* session on 18 November, 11.35

# COVID-19 rapid guideline: delivery of systemic anticancer treatments

NICE

View this summary online at **guidelines.co.uk/455238.article**

- This guideline aims to maximise the safety of patients with cancer and make the best use of NHS resources, while protecting staff from infection. It will also enable services to match the capacity for cancer treatment to patient needs if services become limited because of the COVID-19 pandemic
- This *Guidelines* summary only covers key recommendations for primary care. For a complete set of recommendations, see the full guideline

## Communicating with patients

- Communicate with patients and support their mental wellbeing, signposting to charities and support groups where available, to help alleviate any anxiety and fear they may have about COVID-19
- Minimise face-to-face contact by:
  - offering telephone or video consultations (particularly for follow-up appointments and pretreatment consultations)
  - cutting non-essential face-to-face follow up
  - using home delivery services for medicines if capacity allows
  - introducing drive-through pick-up points for medicines
  - using local services for blood tests if possible
- Tell patients who still need to attend services to follow relevant parts of government advice on social distancing (this differs across the UK), or UK government guidance on shielding and protecting people defined on medical grounds as extremely vulnerable from COVID-19

## Patients not known to have COVID-19

- Ask patients to attend appointments without family members or carers, if they can, to reduce the risk of contracting or spreading the infection
- Minimise time in the waiting area by:
  - careful scheduling
  - encouraging patients not to arrive early
  - texting patients when you are ready to see them, so that they can wait in their car, for example

## Patients known or suspected to have COVID-19

- When patients with known or suspected COVID-19 have been identified, follow appropriate UK government guidance on infection prevention and control. This includes recommendations on patient transfers, transport and options for outpatient settings
- All healthcare workers involved in receiving, assessing and caring for patients who have known or suspected COVID-19 should follow UK government guidance on infection prevention and control. This contains information on using personal protective equipment (PPE), including visual and quick guides for putting on and taking off PPE
- Be aware that patients with COVID-19 are at risk of severe disease following systemic anticancer treatment

- If a patient has COVID-19:
  - only continue systemic anticancer treatment if it is needed for urgent control of the cancer
  - if possible, defer systemic anticancer treatment until the patient has at least 1 negative test for COVID-19

## Patients with symptoms of COVID-19 at presentation

- If a patient not previously known or suspected to have COVID-19 shows symptoms on presentation, the general advice is to follow UK government guidance on investigation and initial clinical management of possible cases. This includes information on testing and isolating patients
- Be aware that patients having systemic anticancer treatments are immunocompromised and may have atypical presentations of COVID-19. Also, symptoms of COVID-19, neutropenic sepsis and pneumonitis may be difficult to differentiate at initial presentation
- Advise all patients to contact their local cancer chemotherapy helpline (rather than NHS 111) if they feel unwell to ensure their symptoms are appropriately assessed
- Screen and triage all patients to assess whether they are known or suspected to have COVID-19, or have been in contact with someone with confirmed infection
- If patients have fever (with or without respiratory symptoms), suspect neutropenic sepsis because this can be rapid and life-threatening, and follow the NICE guideline on neutropenic sepsis, which recommends:
  - referring patients with suspected neutropenic sepsis immediately for assessment in secondary or tertiary care
  - treating suspected neutropenic sepsis as an acute medical emergency and offering empiric antibiotic therapy immediately
- If COVID-19 is later diagnosed in someone not isolated from admission or presentation, follow UK government guidance on management of exposed staff and patients in health and social care settings

## Staff who are self-isolating

- If a healthcare professional needs to self-isolate, ensure that they can continue to help by:
  - enabling telephone or video consultations and attendance at multidisciplinary team meetings
  - identifying patients who are suitable for remote monitoring and follow up and those who are vulnerable and need support
  - carrying out tasks that can be done remotely, such as entering data
- Support staff to keep in touch as much as possible, to support their mental wellbeing

## Modifications to usual service

- Think about how to modify usual care to reduce patient exposure to COVID-19 and make best use of resources (workforce, facilities, equipment)
- Make policy decisions about modifications to usual care at an organisational level



Published date: 20 March 2020.
Last updated: 09 November 2020.

Guidelines Live

Read with Dr Kevin Gruffydd-Jones' *Guidelines Live* session on 18 November, 09.15

# COVID-19 rapid guideline: community-based care of patients with chronic obstructive pulmonary disease (COPD)

NICE

View this summary online at **guidelines.co.uk/455278.article**

The purpose of this summary is to maximise the safety of patients with chronic obstructive pulmonary disease (COPD) during the COVID-19 pandemic, while protecting staff from infection. It will also enable services to make the best use of NHS resources. For more detailed information, please refer to the full guideline.

## Communicating with patients and minimising risk

- Communicate with patients, their families and carers, and support their mental health and wellbeing to help alleviate any anxiety and fear they may have about COVID-19. Signpost to charities (such as the British Lung Foundation) and support groups (such as NHS Volunteer Responders), and UK government guidance on the mental health and wellbeing aspects of COVID-19

- Explain to patients with chronic obstructive pulmonary disease (COPD), and their families and carers, that they are at increased risk of severe illness from COVID-19

- Be aware that the NICE guideline on chronic obstructive pulmonary disease in over 16s defines severe airflow obstruction in patients with COPD as those who have an $FEV_1$ less than 50% of predicted. Other factors associated with a worse prognosis in patients with COPD include:
  - past history of hospital admission
  - need for long-term oxygen therapy or non-invasive ventilation
  - limiting breathlessness
  - the presence of frailty and multimorbidity

- Some patients with severe COPD will have received a letter telling them they are at very high risk of severe illness from COVID-19. Tell them, or their families and carers, to follow UK government advice on shielding and protecting people defined on medical grounds as extremely vulnerable from COVID-19

- Minimise face-to-face contact to reduce the risk of infection by:
  - using telephone, video or email consultations whenever possible
  - cutting non-essential face-to-face appointments
  - contacting patients via text message, telephone or email
  - using electronic prescriptions rather than paper
  - using different methods to deliver prescriptions and medicines to patients, for example pharmacy deliveries, postal services, NHS Volunteer Responders or introducing drive-through pick-up points for medicines

- If patients are having a face-to-face appointment, on the day of the appointment first screen them by telephone to make sure they have not developed symptoms of COVID-19

- Tell patients, their families and carers that they should contact NHS 111 online coronavirus service or call NHS 111 if they think they have COVID-19. They should do this as soon as they have symptoms. In an emergency they should call 999 if they are seriously ill

### Patients not known to have COVID-19

- If patients need to attend face-to-face appointments, ask them to go alone if they can, or with no more than 1 family member or carer, to reduce the risk of contracting or spreading infection with COVID-19. They should avoid using public transport if possible

- Minimise time in the waiting area by:
  - careful scheduling to avoid several patients waiting at the same time
  - separate entrance and exit routes if possible to minimise contact
  - encouraging patients not to arrive early
  - texting or calling patients when you are ready to see them, so that they can wait in their car, for example

### Patients known or suspected to have COVID-19

- When patients with known or suspected COVID-19 have been identified, follow appropriate UK government guidance on infection prevention and control. This includes recommendations on using personal protective equipment (PPE), patient transfers, transport and options for outpatient settings

- If a patient has symptoms of COVID-19 on presentation or admission, follow UK government guidance on investigation and initial clinical management of possible cases. This includes information on testing and isolating patients

- If COVID-19 is later diagnosed in a patient not isolated from admission or presentation, follow UK government guidance for health professionals

## Treatment and care planning

- Tell all patients to continue taking their regular inhaled and oral medicines in line with their individualised COPD self-management plan to ensure their COPD is as stable as possible. This includes those with COVID-19, or who are suspected of having it. Keep their self-management plan up to date, and remind them that online video resources on correct inhaler technique are available

- At every interaction with a patient, be alert for new or increased issues with mental health and wellbeing, particularly anxiety and depression

- Find out if patients have advance care plans or advance decisions around ceilings of care, including 'do not attempt cardiopulmonary resuscitation' decisions

- Encourage patients with more severe COPD who do not have advance care plans to develop one. Use decision support tools (when available), and refer to the Mental Capacity Act 2005 for patients who may lack capacity. Bear in mind that these discussions may need to take place remotely (see the recommendation on minimising face-to-face contact). Document discussions and decisions clearly and take account of these in planning care

### Corticosteroids

- Explain to patients there is no evidence that treatment with inhaled corticosteroids

(ICS) for COPD increases the risk associated with COVID-19

- Tell patients established on ICS to continue to use them, and delay any planned trials of withdrawal of ICS. While there is some evidence that use of ICS in COPD may increase the overall risk of pneumonia (see the 2014 MHRA drug safety update on inhaled corticosteroids: pneumonia), do not use this risk alone as a reason to change treatment in those established on ICS and risk destabilising COPD management

- Tell patients on long-term oral corticosteroids that they should continue to take them at their prescribed dose, because stopping them can be harmful. Advise patients to carry a Steroid Treatment Card

### Self-management for exacerbations

- Tell patients that if they think they are having an exacerbation, they should follow their individualised COPD self-management plan and start a course of oral corticosteroids and/or antibiotics if clinically indicated

- Tell patients not to start a short course of oral corticosteroids and/or antibiotics for symptoms of COVID-19, for example fever, dry cough or myalgia

- Do not offer patients with COPD a short course of oral corticosteroids and/or antibiotics to keep at home unless clinically indicated, as set out in the NICE guideline on chronic obstructive pulmonary disease in over 16s

### Smoking cessation

- Strongly encourage patients with COPD who are still smoking to stop, to reduce the risk of poor outcomes from COVID-19 and their risk of acute exacerbations. This could involve telephone, video or email consultation support (see NHS stop smoking services help you quit). Ensure evidence-based interventions are available (see the NICE guideline on stop smoking interventions and services)

### Pulmonary rehabilitation

- Use online pulmonary rehabilitation resources, such as those available in the British Thoracic Society pulmonary rehabilitation resource pack. This covers self-management, home exercise and educational materials

### Oxygen

- Advise patients currently receiving long-term oxygen therapy not to adjust their oxygen flow rate, unless advised to by their healthcare professional

- Advise patients currently receiving ambulatory oxygen not to start using it at rest or in their home

### Oral prophylactic antibiotic therapy

- Do not routinely start prophylactic antibiotics to reduce risk from COVID-19

- Tell patients already prescribed prophylactic antibiotics to continue taking them as prescribed, unless there is a new reason to stop treatment (for example, side effects or allergic reaction). Advise patients to contact their care team if this happens

### Airway clearance

- Advise patients currently using airway clearance techniques to continue to do so

- Advise patients that inducing sputum is a potentially infectious aerosol generating procedure, and they should take appropriate precautions such as:
  - performing airway clearance techniques in a well-ventilated room
  - performing airway clearance techniques away from other family members if possible
  - advising other family members not to enter the room until enough time has passed for aerosols to clear

## Equipment

- Tell patients to wash their hands and clean equipment, such as face masks, mouth pieces, spacer devices and peak flow meters, regularly using washing-up liquid or following the manufacturer's cleaning instructions

- Tell patients not to share their inhalers and devices with anyone else

- Tell patients they can continue to use their nebuliser. This is because the aerosol comes from the fluid in the nebuliser chamber and will not carry virus particles from the patient. Find out more from UK government guidance on COVID-19: infection prevention and control

- Do not offer nebulisers to patients unless clinically indicated (see the NICE guideline on chronic obstructive pulmonary disease in over 16s)

- Advise patients currently receiving non-invasive ventilation at home that these are potentially infectious aerosol generating procedures, and they should take appropriate precautions such as:
  - using equipment in a well-ventilated room
  - using equipment away from other family members if possible

## Modifications to usual care and service delivery

- When planning changes to usual care, take into account people's access to digital and online resources, digital literacy and any preference for verbal or written support (for example, digital-only services could lead to inequalities of access for people with limited internet access)

- Think about how to modify usual care to reduce patient exposure to COVID-19 and make best use of resources (workforce, facilities, equipment), for example:
  - switch respiratory services to telephone or virtual consultations, including routine annual reviews
  - defer routine pulmonary function testing
  - defer oxygen follow-up assessments if possible

- On a case-by-case basis, carry out or defer assessments to establish if patients are eligible for long-term oxygen therapy (as defined by the NICE guideline on chronic obstructive pulmonary disease in over 16s) or might benefit from non-invasive ventilation at home for nocturnal hypoventilation

- Prescribe enough COPD medicines to meet the patient's clinical needs for no more than 30 days. For inhalers this depends on the type of inhaler and the number of doses in the inhaler. Prescribing larger quantities of medicines puts the supply chain at risk



Published date: 09 April 2020.

Guidelines Live Read with Dr Kevin Fernando's *Guidelines Live* session on 17 November, 14.15

# Pharmacological management of type 2 diabetes

Primary Care Diabetes Europe

View this summary online at **guidelines.co.uk/455520.article**

## Overview

This *Guidelines* summary of Primary Care Diabetes Europe's position statement, 'A disease state approach to the pharmacological management of Type 2 diabetes in primary care', outlines the treatment recommendations by cardiovascular/renal disease or risk factor. Please refer to the full guideline for a review on the current evidence for glycaemic efficacy, cardiovascular and renal risk, and side effects for a wide variety of therapies for type 2 diabetes.

## For all patients with type 2 diabetes

- Side effects are major factors influencing treatment choice and medication adherence. Patients will have their personal needs and preferences. Shared decision making is an approach in which patients and clinicians work together and engage in a deliberate dialogue about reasonable treatment options
- As part of their first-line therapy, all patients with type 2 diabetes should be offered individualised and comprehensive lifestyle counselling including weight management, physical activity, dietary guidance, and smoking cessation
- To avoid therapeutic inertia, dual therapy may be considered at diabetes diagnosis in patients who are likely to benefit from better glycaemic control. The decision of whether to initiate dual therapy at diagnosis should consider individual patient characteristics and treatment goals
- All glycaemic and lifestyle goals should be co-developed and agreed to by the patient and physician. For patients who find it challenging to meet their glycaemic goals, therapeutic lifestyle modifications and adherence to these measures should be discussed at ongoing follow-up visits every three to six months. In addition to healthy lifestyle management, newly diagnosed patients with type 2 diabetes should also be treated with metformin as the first-line pharmacological therapy of choice
- If a dual therapy approach is used, in addition to achieving intensive glycaemic control very early in the disease trajectory, extra-glycaemic benefits such as prevention of cardiovascular disease, prevention of renal disease deterioration and weight loss could be gained
- If metformin monotherapy is chosen at diagnosis, patients should be monitored closely at ongoing follow-up visits every 3–6 months to avoid therapeutic inertia. For patients on dual therapy and not meeting treatment goals, additional intensification should be strongly considered to avoid therapeutic inertia.





## Cardiovascular risk stratification in patients with type 2 diabetes

- Patients with type 2 diabetes are considered to be at *very high cardiovascular risk* if they have any of the following:
  - history of cardiovascular disease (CVD)
  - multiple uncontrolled CVD risk factors, including hypertension, hyperlipidaemia, obesity, smoking and/or physical inactivity
  - estimated glomerular filtration rate (eGFR) <60 ml/min/1.73 $m^2$
  - albuminuria
  - age at diagnosis <40 years
- All other patients with type 2 diabetes are considered to be at *high cardiovascular risk*.

## Treatment recommendations for patients with atherosclerotic cardiovascular disease

- Consider initiating metformin + sodium-glucose co-transporter-2 inhibitors (SGLT2i)/glucagon-like peptide-1 receptor agonist (GLP-1RA) rather than stepwise
- Metformin as first-line therapy
- SGLT2i or GLP-1RA with proven cardiovascular benefit as second-line therapy
- Use basal insulin with caution when other options have failed, and glycaemic targets are not met
- When deciding on the most appropriate and effective antihyperglyaemic medication to add after or with metformin, it is important to consider the presence of other diabetes-associated comorbidities. The presence of atherosclerotic cardiovascular disease (ASCVD) in people with type 2 diabetes strongly advocates choosing a glucose-lowering drug that controls and prevents the worsening of ASCVD, hospitalisation for heart failure (HF), renal disease and mortality
- Therapy in patients at increased risk of stroke should also be focused on lowering blood pressure, which has been shown to dramatically lower risk
- Patients and HCPs should also discuss the considerable inter-individual variation in magnitude of effect on $HbA_{1c}$ and weight loss in patients treated with GLP-1RAs, and continued treatment with these therapies should be evaluated after six months
- Importantly, insulin should only be used in patients with type 2 diabetes and ASCVD when other options have been attempted and co-developed glycaemic goals have not been met, except if the patient presents with acute hyperglycaemic osmotic symptoms, diabetic ketoacidosis, or hyperglycaemic hyperosmolar non-ketotic coma. However, these presentations are not routinely managed in primary care.

## Treatment recommendations for patients with heart failure

- Consider initiating metformin + SGLT2i rather than stepwise
- Metformin as first-line therapy
- SGLT2i as second-line therapy
- Avoid pioglitazone and saxagliptin and use basal insulin with caution
- For those with HF, patients and HCPs should carefully weigh the benefits of stricter glycaemic control against the risks

of worsening HF, with reduced insulin intensification given serious consideration.

## Treatment recommendations for patients with chronic kidney disease

- Consider initiating metformin + SGLT2i rather than stepwise, according to the approved restrictions of dose and indications by eGFR
- Metformin as first-line therapy if eGFR>30 ml/min/1.73 $m^2$
- SGLT2i as second-line therapy in patients with >45 ml/min/1.73 $m^2$, even when well-controlled on metformin alone
- GLP-1RA as third-line therapy or if previous treatments are not tolerated, followed by dipeptidyl peptidase-4 inhibitor (DPP-4i)
- Reduce dose of glinides and reduce dose or discontinue sulfonylureas (SUs) if eGFR <45 ml/min/1.73 $m^2$ to reduce the risk of hypoglycaemia
- Consult prescribing instructions for specific agents for dosing instructions based on eGFR.

## Treatment recommendations for patients at high cardiovascular risk

- Overall, it is the role of the primary care physician to view the patient as a whole. Patients with type 2 diabetes at high cardiovascular risk should also be assessed and treated for non-diabetes-related risk factors such as smoking cessation, dyslipidaemia and hypertension
- Consider initiating metformin + SGLT2i/GLP-1RA/DPP-4i rather than stepwise
- Metformin as first-line therapy
- SGLT2i or GLP-1RA or DPP-4i as second-line therapy where cost is not prohibitive. Of these, SGLT2i or GLP-1RA with proven cardiovascular benefit is preferred
- Newer-generation SUs or glinides when drug cost must be minimised
- Pioglitazone in patients with non-alcoholic fatty liver disease and where insulin resistance predominates
- Basal insulin when other therapies have been explored and glycaemic targets are not met
- Full basal–bolus insulin therapy only as a last resort
- For patients who remain above target after initiation of basal insulin, insulin/GLP-1RA combination therapies may be an attractive alternative to full basal–bolus therapy, leading to reduced weight gain compared to insulin therapy at equivalent or better glycaemic control.

## Treatment recommendations for patients with obesity

- Weight loss between 5% and 10% of starting body weight has been shown to be beneficial and should be a healthy lifestyle goal for most patients with type 2 diabetes
- Consider initiating metformin + GLP-1RA/SGLT2i rather than stepwise
- Metformin as first-line therapy
- GLP-1RA or SGLT2i as second-line therapy
- Where possible, avoid treatments that cause weight gain, including most SUs, glinides, pioglitazone, and insulin
- If basal insulin is required, consider fixed-ratio insulin/GLP-1RA combinations.

## Treatment recommendations for elderly/frail patients

- Quality of life should be a priority focus for patients who are elderly/frail. Stringent glycaemic targets are unlikely to be appropriate in this population due to the reduced life expectancy in which to accrue microvascular benefits, and because of the increased risk of hypoglycaemia
- Avoid stringent glycaemic targets that increase risk of hypoglycaemia
- Metformin as first-line therapy if tolerated and not contraindicated
- DPP-4i is a safe and easy to use option
- Assess adherence and avoid multiple daily injectable medications when possible.

Full guideline:

Seidu S, Cos X, Brunton S et al. A disease state approach to the pharmacological management of Type 2 diabetes in primary care: A position statement by Primary Care Diabetes Europe. *Prim Care Diabetes* 2020 (in press). Available at: primary-care-diabetes.com/article/S1751-9918(20)30189-3/pdf

Published date: June 2020.





DIABETES

Guidelines Live Read with Julie Van Onselen's *Guidelines Live* session on 17 November, 10.00

# Adult eczema—primary care treatment pathway

Primary Care Dermatology Society

View this summary online at **guidelines.co.uk/454998.article**

## What is eczema?

Eczema (also known as atopic eczema or atopic dermatitis) is a common, chronic, relapsing, inflammatory skin disorder. The skin function is impaired leading to porous and dry skin that easily becomes inflamed, susceptible to infection and itchy. Chronically scratched skin may become thickened (lichenified)

## Assessment

An holistic approach is essential

- History of itchy rash often with onset in childhood
- Relevant family/social history—eczema, asthma, hayfever, smokers, pets
- Distribution and clinical signs
- Impact on quality of life and sleep
- What treatments are being and have been used; how long for; what helped and what did not

## Management principles—ABC rule

A. **A**void triggers; soaps or anything that lathers, cigarette smoke, irritant clothing

B. **B**land moisturisers; an absolute essential part of treatment. Should be fragrance free. Applied ideally 3–4 times a day; prescribe adequate quantities (at least 500g/week); patient choice improves concordance; bath additives are not recommended; use emollients to wash (apply before wetting the skin). Ideally wash hair over the sink to avoid shampoo on skin causing irritation

C. **C**ontrol inflammation

- Topical steroids matched to severity and anatomical site—mild (face & flexures), moderate, potent
- Topical steroids use once daily for 1–6 weeks until settled, decreasing to twice weekly use for maintenance if frequent flares
- Step-up use to daily during a flare, then wean back down for maintenance therapy (reduces frequency of flares)
- Calcineurin inhibitors (e.g. topical tacrolimus or pimecrolimus) are useful as second line and particularly useful in delicate sites (eyelids, face, flexures)

## Other considerations

- No evidence of benefit with non-sedating anti-histamines
- Sedating anti-histamines **short-term** may aid sleep and break the itch-scratch cycle





**Table 1: Clinical features and specific treatment of five adult eczema types**

| Type | Clinical features | Specific treatment |
|---|---|---|
| Stasis (Varicose) Eczema | ■ Bilateral erythematous, scaly, pruritic, rash of lower legs, often oedematous<br>■ Commonly misdiagnosed as bilateral cellulitis which is extremely rare. Cellulitis is unilateral, associated with ascending erythema, patient may have systemic signs of infection<br>■ May co-exist with contact dermatitis from dressings | ■ Full emollient regimen<br>■ Consider potent steroid 2–4 weeks then step down to twice weekly maintenance or use tacrolimus 0.1%<br>■ Consider paste or compression bandages |
| Discoid Eczema | ■ Multiple round shaped plaques that are sometimes weepy with exudative crusts<br>■ Often misdiagnosed as impetigo, or more commonly, a fungal infection. Scrape any scale and send mycology if in doubt<br>■ Usually extremely itchy | ■ Full emollient regimen<br>■ Potent topical steroids 4–6 weeks<br>■ May need super-potent topical steroids up to 2 weeks<br>■ Consider maintenance therapy twice weekly |
| Pompholyx | ■ Extremely itchy clear vesicles on hands and feet | ■ Full emollient regimen<br>■ Super-potent topical steroids for 2 weeks. May need to use under occlusion with clingfilm overnight<br>■ Then twice weekly maintenance regimen<br>■ Treat any co-existing athlete's foot after confirming with skin scrapings |
| Contact Dermatitis | ■ Worsening eczema at defined sites secondary to a contact allergen | ■ Full emollient regimen<br>■ Take detailed history e.g. occupational and recreational<br>■ Consider potent steroid 2–4 weeks then step down to twice weekly maintenance or use tacrolimus 0.1%<br>■ Refer for patch testing if contact allergen cannot be identified accurately from history |
| Asteatotic Eczema (also known as eczema craquelé) | ■ Often seen in the elderly<br>■ Dry skin with superficial cracked (dried-up riverbed) appearance<br>■ Areas of excoriation, erythema and bleeding may be evident due to rubbing or scratching | ■ Full emollient regimen<br>■ Steroids rarely needed<br>■ Ideally avoid an overly warm environment |

- Directing to patient support groups e.g. National Eczema Society
- Complications—suspect infections in rapidly deteriorating eczema (bacterial or viral), take swabs, consider oral antibiotics or antivirals. Avoid long-term use of combination topical agents (e.g. clotrimazole or fucidic acid with a topical steroid)
- No good evidence for alternative therapies

## When to refer

- Diagnostic uncertainty
- Failure to respond to treatment
- Cutaneous atrophy from chronic topical steroid use
- Suspicion of allergic contact dermatitis (especially if new onset of eczema of face and hands) for patch testing
- **Refer urgently:** severely infected eczema, e.g. bacterial or HSV in a systemically unwell adult or erythroderma (>90% body surface)

Full guidelines available from: *Primary Care Dermatology Society* www.pcds.org.uk/ee/images/uploads/general/Adult_Eczema_Pathway-web.pdf

First included: September 2019.

Further information: *National Eczema Society* **eczema.org**

# Eczema—paediatric (0–12 years): primary care treatment pathway

Primary Care Dermatology Society

View this summary online at **guidelines.co.uk/455000.article**

## What is eczema?

Eczema (also known as atopic eczema or atopic dermatitis) is a common, chronic, relapsing, inflammatory skin disorder. The skin function is impaired leading to porous and dry skin that easily becomes inflamed, susceptible to infection and itchy. Chronically scratched skin may become thickened (lichenified).

## Assessment

An holistic approach is essential:

- Onset under 2 years of age; presence of an itchy rash
- Relevant family/social history—eczema, asthma, hayfever, smokers, pets
- Impact on quality of life for child and family (sleep deprivation, schooling, family dynamics)
- Adverse effects on child such as failure to thrive
- What treatments are being and have been used; how long for; what helped and what did not
- Parental expectations and specific questions should be documented/addressed
- Distribution of eczema and other clinical signs e.g. generally dry skin, weeping, crusting.

## Management principles—ABC rule

A. **A**void triggers; soaps or anything that bubbles or lathers, cigarette smoke, irritant clothing.

B. **B**land moisturisers which are fragrance-free are an absolute essential part of treatment. Ideally applied 3–4 times a day; prescribe adequate quantities (at least 250–500g/week); patient choice improves concordance; bath additives are not recommended; use emollients to wash (apply before wetting the skin); ideally wash hair over the sink to avoid shampoo on skin causing irritation.

C. **C**ontrol inflammation—match potency of topical steroids (mild, moderate, potent) to the severity of eczema and anatomical site. Use once daily until eczema is settled (usually 1–6 weeks), then decrease to twice weekly use for maintenance. Step-up use to daily during a flare, then wean back down for maintenance therapy (reduces frequency of flares). Topical calcineurin inhibitors are useful as second line treatment. Tacrolimus 0.1% (off-licence)

**Table 1: Clinical features and specific treatment of four types of paediatric eczema**

| Type | Clinical features | Specific treatment |
|---|---|---|
| Infant Facial Eczema | ■ Moderate to severe exudative facial eczema unresponsive to hydrocortisone | ■ In difficult facial eczema consider moderate potency steroid e.g. Eumovate® for 5 days<br>■ For persistant eczema consider 0.1% tacrolimus (off-licence) |
| Eczema Herpeticum | ■ Punched-out vesicles and lesions that have the same shape and configuration (i.e. are monomorphic) | ■ Oral aciclovir for localised eczema herpeticum (review in 48–72 hours but provide careful safety-netting and see if worsens ASAP)<br>■ Admit under paediatrics for intravenous therapy if unwell/extensive |
| Discoid Eczema | ■ Single/multiple round shaped patches and lesions, sometimes weepy<br>■ Often misdiagnosed as impetigo, or more commonly, a fungal infection. Scrape any scale and send mycology if in doubt | ■ Tends to need more prolonged courses of moderate to potent topical steroids (for up to 6 weeks) and recurrence is common |
| Chronic Lichenified Eczema | ■ Thickened excoriated skin with increased skin markings | ■ Potent steroids plus occasion (e.g. paste bandages or clingfilm wrapped around a limb at night) once daily for up to 2 weeks, then review<br>■ Step down accordingly if improvement is noted |

can be used for children and is particularly useful when applied to delicate site ie flexures, eyelids. Oral steroids should not normally be prescribed for children with eczema in primary care without specialist advice. **There is unjustified TOPICAL steroid phobia amongst healthcare professionals; there is robust evidence of the safety in long-term use in eczema.**

## Other considerations

- Investigation—no routine role for allergy testing or exclusion diets unless failure to thrive (under 6 months of age) or obvious triggers in the history
- No evidence for the use of non-sedating antihistamines in eczema but short-term use of sedating antihistamines may improve sleep
- No evidence for use of prescribed garments
- Direct to patient support groups e.g. National Eczema Society and/or other eczema websites; **offer written/ documented advice to families**
- Complications—infection (bacterial or viral)—use of short-term antibiotics or antivirals are appropriate after a swab has been taken if infection is suspected. Avoid long-term use of combination topical agents (e.g. clotrimazole or fucidic acid with a topical steroid)
- In families with atopic eczema history, start emollient therapy at birth as this might help reduce the incidence of eczema
- There is no compelling evidence for the use of alternative therapies.



SKIN AND WOUND CARE

## When to refer

- Diagnostic uncertainty
- Failure to respond to treatment
- Steroid atrophy/overuse of topical steroids
- Eczema herpeticum or suspected bacterial infection (e.g. streptococcal) not responding to treatment
- Severe eczema or systemically unwell child.

## Allergy and diet

Infants under 6 months with moderate to severe eczema not responding to optimal topical treatment could be considered for a trial of 4–8 weeks of extensively hydrolysed protein formula whilst awaiting referral to Dermatology. Exclusion diets should not be trialled without dietitian guidance or specialist review.

Full guidelines available from: *Primary Care Dermatology Society* www.pcds.org.uk/ee/images/uploads/general/Paediatric_Eczema_Pathway-web.pdf

First included: September 2019.

Further information: *National Eczema Society* **eczema.org**

Guidelines Live Read with Dr Anne Connolly's *Guidelines Live* session on 18 November, 15.20

# How to manage HRT provision without face to face consultations during COVID-19 healthcare restrictions

Primary Care Women's Health Forum

## Overview

The Primary Care Women's Health Forum has produced this guide for primary care practitioners in order to provide support for hormone replacement therapy (HRT) provision during COVID-19 healthcare restrictions.

View this summary online at **guidelines.co.uk/455499.article**

## Menopause management checklist tools for remote consultations in primary care

**Table 1: Tool for initiating HRT by remote consultation**

| CHECKLIST | Y/N | TOP TIPS AND WHERE TO FIND MORE INFORMATION, BASED ON NICE MENOPAUSE: DIAGNOSIS AND MANAGEMENT[A] |
|---|---|---|
| BMI <30kg/m$^2$ | y/n | Watch for BMI > 30kg/m$^2$, see risk review. |
| Blood pressure normal | y/n | HRT OK if hypertension well controlled, if no BP available see tip no. 5 on PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |
| Progestogen required | y/n | Progestogen required unless hysterectomy or 52mgLNG IUS within 5 years document in notes |
| Last menstrual period <12 months | y/n | Document perimenopause or post menopause as appropriate |
| Regular medications | | Check GP notes |
| Past medical history | | Check GP notes |
| Smoker | y/n | How much? |
| Alcohol >14 units/week | y/n | Document number of units |
| Cervical Cytology up to date | y/n | Check GP notes |

Continued on the next page





**Table 1 (continued): Tool for initiating HRT by remote consultation**

| CHECKLIST | Y/N | TOP TIPS AND WHERE TO FIND MORE INFORMATION, BASED ON NICE MENOPAUSE: DIAGNOSIS AND MANAGEMENT[A] |
|---|---|---|
| **QUESTIONS FOR PATIENT** | | |
| Do you feel that your symptoms are related to the menopause? | y/n | See Rock My Menopause for symptoms of menopause |
| Which symptoms are you most concerned about? | | Document in notes<br>Signpost to 'Symptom Tracker' on Rock My Menopause |
| Are you hoping to be prescribed HRT? | y/n | If Yes – Signpost to PIL 'HRT in a nutshell'<br>If No – Signpost to 'Alternatives to HRT' |
| Have you found out about benefits and potential long-term risks of using HRT? | y/n | Document the source of information or signpost to RCOG menopause information webinar and NHS |
| Do you have any vaginal dryness or discomfort? | y/n | If Yes – Offer vaginal oestrogen and signpost<br>pcwhf.co.uk/resources/vulval-skin-care/<br>rockmymenopause.com/portfolio-item/vaginal-dryness |
| Are you attending recommended screening programmes? | y/n | Reiterate advice regarding cytology, mammography and breast awareness<br>pcwhf.co.uk/resources/the-vulval-pain-society-leaflet-smearswithout-tears<br>nhs.uk/conditions/breast-cancer-screening |
| Any concerns about vaginal bleeding? | y/n | Please follow NICE guidance as appropriate<br>HMB nice.org.uk/guidance/ng88<br>PMB nice.org.uk/guidance/ng12/chapter/1-Recommendationsorganised-by-site-of-cancer#gynaecological-cancers |
| Are you sexually active? | y/n | Do you have problems in this area? |
| Are you at risk of pregnancy? | y/n | If in doubt advise contraception until 55yrs[B] |
| Have you recently changed your sexual partner? | y/n | Establish STI risk |

[A] NICE. Menopause: diagnosis and management. (2015). NICE guideline [NG23] Published date: November 2015 Last updated: December 2019. Available at: nice.org.uk/guidance/ng23

[B] FSRH Guidance for contraception for women over 40. (2019). Available at: fsrh.org/documents/fsrh-guidancecontraception-for-women-aged-over-40-years-2017/fsrh-guidelinecontraception-aged-over-40-sep-2019.pdf

Abbreviations: HMB=heavy menstrual bleeding; PMB=post-menopausal bleeding

**Table 2: Tool for reviewing HRT by remote consultation**

| HRT REVIEW CHECKLIST | Y/N | TOP TIPS AND WHERE TO FIND MORE INFORMATION |
|---|---|---|
| BMI < 30kg/m$^2$ | y/n | Watch for BMI > 30kg/m$^2$, see risk review. |
| Blood pressure normal | y/n | HRT OK if hypertension well controlled |
| Progestin required | y/n | Unless hysterectomy or 52mgLNG IUS within 5 years |
| HRT supply difficulty? | y/n | For HRT converter see PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |
| **QUESTIONS FOR PATIENT** | | |
| Is the HRT helping symptoms? | y/n | |
| Any side effects? | y/n | For HRT side effects troubleshooter, see below |
| Any change to your health since your last HRT check? | y/n | Document in notes |
| Any change to your other medications since your last HRT check? | y/n | Document in notes |
| Do you have any vaginal dryness or discomfort? | y/n | If Yes – Offer vaginal oestrogen and see PIL on vulval care<br><br>pcwhf.co.uk/resources/vulval-skin-care |
| Are you attending recommended screening programmes? | y/n | Reiterate advice regarding cytology, mammography and breast awareness, see PIL<br><br>pcwhf.co.uk/resources/the-vulval-pain-society-leaflet-smears-without-tears |
| Any concerns about vaginal bleeding? | y/n | For tips on bleeding, see PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |
| Do you need contraception? | y/n | If in doubt, advise contraception until 55yrs[A] |
| **RISK REVIEW BY PRIMARY HEALTHCARE PRACTITIONER** | | |
| Venous Thromboembolism, new risk? | y/n | Consider transdermal oestrogen if risk, see PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |
| Arterial, new risk? | y/n | Consider transdermal oestrogen if risk, see PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |

Continued on the next page





**Table 2 (continued): Tool for reviewing HRT by remote consultation**

| HRT REVIEW CHECKLIST | Y/N | TOP TIPS AND WHERE TO FIND MORE INFORMATION |
|---|---|---|
| Breast, new risk? | y/n | For counselling tip, see PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |
| Bone, new risk? | y/n | HRT protects bone density, see PCWHF tips on HRT provision during COVID-19 healthcare restrictions. |
| Metabolic, new risk? | y/n | If liver disease, malabsorption, thyroid disorder or diabetic consider transdermals |
| Might testosterone add benefit? | y/n | See tip 9 in PCWHF tips on HRT provision during COVID-19 healthcare restrictions and pcwhf.co.uk/resources/10-top-tips-on-testosterone-use-for-women |
| Next HRT review OK for 12 months? | y/n | 12 months is OK unless you have concerns |

[A] FSRH Guidance for contraception for women over 40. (2019). Available at: fsrh.org/documents/fsrh-guidance-contraception-for-women-aged-over-40-years-2017/fsrh-guideline-contraception-aged-over-40-sep-2019.pdf

**Table 3: HRT prescribing tool**

| OESTROGEN ONLY (no uterus or IUS) | SEQUENTIAL COMBINED (uterus – monthly bleed) | CONTINUOUS COMBINED (uterus – no bleed) Lmp > 1 yr ago if > 50yrs Lmp > 2yrs if < 50 yrs |
|---|---|---|
| **PATCHES** | | |
| **Available as brands**<br>**Twice weekly patch**<br>E2 40/80<br>E2 25/50/75/100<br>E2 25/37.5/50/75/100<br>E2 50/75/100<br>**Once weekly patch**<br>E2 50 (mcg/24hrs) | **Mix and Match**<br>E2 + MPA 10mg cyclical<br>E2 + MP 200mg cyclical<br>**Available as brands**<br>E2 50mcg + LNG 10mcg cyclical<br>E2 50mcg + NET 170mcg cyclical | **Mix and Match**<br>E2 + MPA 5-10mg conti<br>E2 + MP 100mg conti<br>**Available as brands**<br>E2 50mcg + NET170mcg<br>E2 50mcg + LNG 7mcg |
| **GELS** | | |
| **Daily**<br>E2 Pump-Pack 0.06%<br>E2 gel sachets 0.5/1mg | E2 + MPA 10mg cyclical<br>E2 + MP 200mg cyclical | E2 + MPA 5-10mg conti<br>E2 + MP 100mg conti |

**Table 3 (continued): HRT prescribing tool**

| OESTROGEN ONLY (no uterus or IUS) | SEQUENTIAL COMBINED (uterus – monthly bleed) | CONTINUOUS COMBINED (uterus – no bleed) Lmp > 1 yr ago if > 50yrs Lmp > 2yrs if < 50 yrs |
|---|---|---|
| **ORAL HRT** | | |
| CEE 0.3/0.625/1.25mcg | No branded option | CEE 0.3/1.5MPA continuously |
| E2 0.5mg (use half of 1mg) | No branded option | **Available as brand**<br>E2 0.5+ 2.5mg dydro conti |
| E2 1mg | **Mix and Match**<br>E2 1mg + MPA 10mg cyclical<br>E2 1mg + MP 200mg cyclical<br>**Available as brands**<br>E2 1mg + cyclical dydro<br>E2 1mg with cyclical NET | **Mix and Match**<br>E2 1mg + MPA 5-10mg conti<br>E2 1mg + MP 100mg conti<br>**Available as brands**<br>E2 1mg + 5mg dydro conti<br>E2 1mg + NET 0.5mg conti<br>E2 1mg + MPA conti |
| E2 2mg | **Mix and Match**<br>E2 2mg + MPA 10mg cyclical<br>E2 2mg + MP 200mg cyclical<br>**Available as brands**<br>E2 2mg + with cyclical dydro<br>E2 2mg with cyclical NET<br>E2 2mg + MPA long cycle | **Mix and Match**<br>E2 2mg + NET1mg conti<br>E2 2mg + MPA conti<br>**Available as brands**<br>E2 2mg + NET 1mg conti<br>E2 2mg + MPA 5mg conti |
| Estradiol valerate 1mg/2mg | No branded option | No branded option |
| No branded option | No branded option | Tibolone 2.5mg |

**TABLE KEY**

CEE—conjugated equine estrogen; conti—continuous regimen; cyclical progestogen regimen—for last 14–28 days of each cycle; dydro—dydrogesterone (mildly anti androgenic progesterone derived progestin); E2—estradiol; LNG—levenorgestrel (androgenic); MP—micronised progesterone (body identical); MPA—medroxyprogesterone acetate (progestogenic with high endometrial affinity); NET—norethisterone (androgenic progestin)





## Tips on HRT provision during COVID-19 healthcare restrictions

It is okay to prescribe up to 12 months of HRT providing you are happy with the HRT check. This is based on NICE guideline [NG23] (nice.org.uk/guidance/ng23). Review each treatment for short-term menopausal symptoms:

- at three months to assess efficacy and tolerability
- annually thereafter unless there are clinical indications for an earlier review (such as treatment ineffectiveness, side effects or adverse events).

**1. HRT converter: how to convert oestradiol gels and patches**

- 1.5mg oestradiol gel = 50mcg patch = 2mg oral oestradiol are reasonably bioequivalent

**2. HRT availability and equivalents:**

- if you can't get hold of an oestrogen-only patch, then consider swapping to gel
- if swapping patches, brands will differ because of glue. Some patches stay on better than others
- beware weekly and twice-weekly regimens when prescribing patches
- for further information on equivalents, see the full guideline

**3. HRT side-effects and trouble shooting:**

- the main side-effects of taking oestrogen include bloating, breast tenderness or swelling, feeling sick, leg cramps, headaches, indigestion. Consider changing to transdermal or if on transdermal adjusting dose
- the main side-effects of taking progestin include breast tenderness, swelling in other parts of the body, headaches or migraines, mood swings, depression, acne, and gastrointestinal side effects. If on oral, consider swapping the progestin to dydrogesterone, or if on combined patch consider swapping to oestradiol only with oral progesterone e.g. micronised progesterone or medroxyprogesterone acetate.

**4. Unscheduled vaginal bleeding and HRT:**

- the RCOG, BSGE and BGCS recommend remote consultation and minimising gynaecological procedures. In practice, this means that as primary care practitioners, access to hysteroscopy will be limited.
- **as usual, unscheduled bleeding of any duration consider pregnancy, STI and cervical cytology as appropriate. Please also see the PCHWF's resource How to manage women presenting with abnormal vaginal bleeding in primary care without face-to-face contact**
- follow on from recent advice from the British Menopause Society
- **unscheduled bleeding <6 months (common in first three to four months of HRT).**
- Intra-uterine systems (IUS) and HRT:
  - keep IUS in situ and add in progestin MP, MPA or NET or swap to cyclical progestogen regimen (see the PCWHF HRT prescribing resource)
- Cyclical HRT:
  - increase progestin dose (MPA 20 mg or MP 300 mg for 12–14 days for 28-day cycle)
  - or duration (e.g. MPA 20 mg for 21 days of 28-day cycle)
  - or type (e.g. medroxyprogesterone acetate has good endometrial affinity and may provide the best bleed control)

- Continuous combined HRT:
  - increase progestin dose (e.g 100 mg MP to 200 mg daily, 5 mg MPA to 10 mg)
  - swap progestin (to MPA or NET)

- **If unscheduled bleeding > 6 months consider further investigation (e.g. pelvic ultrasound and endometrial biopsy) or write for advice and guidance from local hysteroscopy service.**

**5. NICE (NG23) recommends analysis of individualised long-term benefits and risks of hormone replacement therapy:**

- see NG23 (nice.org.uk/guidance/ng23) for recommendations on the benefits and risks of HRT in relation to venous thromboembolism, cardiovascular risks, breast cancer, and osteoporosis.

**6. Metabolic considerations:**

- **if patients are on levothyroxine, they often get on better with a transdermal oestrogen than oral (due to the actions of sex hormone binding globulin). Type 2 diabetes—no need to stop HRT in diabetic patients, consider swapping to patch or gels for less metabolic impact.**

**7. IUS rules**

- **Mirena for HRT**
  - if Mirena is > five years add oral progestin such as MPA 5–10 mg or Utrogestan 100 mg daily
  - if Mirena is inserted for the purpose of HRT, the FSRH recommendation is that it can stay in for five years (licensed for four years) with oestrogen therapy but if is more than five years then her HRT should be changed from oestrogen only to a combined HRT preparation.

- **Mirena for contraception**
  - Mirena is licensed for five years use for contraception. FSRH advice is that if the Mirena is between five and seven years since it was changed then contraceptive cover continues. So, no need to change now. An IUS placed over 45 years previously will still act as contraception for a perimenopausal woman until age 55 years

**8. Please remember vaginal health**

- vaginal oestrogen has minimal systemic absorption and is widely considered to be safe

**9. Use of testosterone**

- starting testosterone now in primary care is not ideal, as it requires laboratory monitoring which is not available. Patients who are stable on testosterone should continue the established dose
  - starting testosterone requires laboratory testing which is not currently available
  - write for advice and guidance to gynae/menopause specialist if not confident starting

- testosterone can be essential for maintaining quality of life particularly those with POI and/or surgical menopause. If there are signs of androgen deficiency in a woman who is on adequate oestrogen replacement, then testosterone replacement should may be considered if the clinician feels confident to do so

- for clear guidance: thebms.org.uk/publications/tools-forclinicians/testosterone-replacement-in-menopause

Full guideline:

Primary Care Women's Health Forum. *How to manage HRT provision without face to face consultations during COVID-19 healthcare restrictions.* April 2020. Available at: pcwhf.co.uk/resources/how-to-manage-hrt-provision-without-face-to-face-consultations-during-covid-19-healthcare-restrictions/

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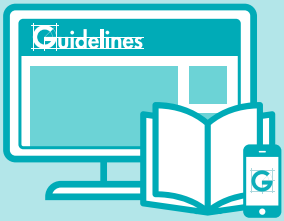


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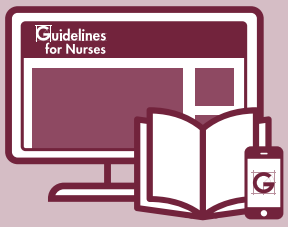


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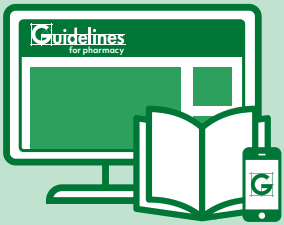


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