Taskforce for Lung Health position paper on optimising inhaler technique remotely

This briefing sets out the position by the Taskforce for Lung Health Medicines Optimisation Working Group on optimising inhaler technique remotely, which is supported by the NHS England and NHS Improvement Consolidated Inhaler Working Group. The recommendations are intended for primary, secondary and tertiary care. Currently, community pharmacy is not set up for video consultations, so not all the recommendations are applicable to this setting.

The Taskforce supports NHS England's ambition to do more to support people with respiratory disease to receive and use the right medication. An important aspect of this is correct inhaler technique. Currently, the way in which inhaler technique is checked needs to adapt to be able to reach more people with respiratory disease. While a face to face consultation using a systematic review process, like the Seven Step approach, is considered the most effective way to confirm if a patient can use their inhaler device(s), shielding, social distancing and other unavoidable constraints make this impossible. In fact, many people wouldn't or couldn't have face-to-face reviews before COVID-19 and so using virtual consultations may help expand the total number of inhaler technique checks carried out.

This briefing re-emphasises the importance of optimising inhaler technique, sets out recommendations for when remote reviews should be used and provides examples of how a virtual consultation can be carried out in practice.

Summary of the paper's recommendations:

a) Inhaler technique optimisation must remain an essential component of care for people with asthma and/or COPD

b) Observing a person demonstrate how they use their inhaler face-to-face is supported by the largest evidence-base, so remains the preferred method of assessment

c) A video-enabled consultation can support patients who cannot be seen in person. It will be helpful in improving technique with devices patients are already familiar with, or establishing that a change in device is necessary

d) A telephone consultation can provide an opportunity to reinforce the importance of optimal inhaler technique and allow the healthcare professionals and patients to talk through their technique to identify areas/steps that require improvement

e) Video/phone consultations can be used to identify patients who should be prioritised for face to face appointment. This includes people struggling to take their preventer treatment as directed, frequent use of rescue therapy (salbutamol, prednisolone) and/or with a significant symptom burden

f) During every consultation, but particularly those completed virtually, the healthcare professional should recommend the patient look at online resources such as the patient inhaler videos hosted on Asthma UK website and make another appointment if they have any questions.

Scene setting

The National Review of Asthma Deaths (NRAD) suggested that less than half of patients reviewed had their inhaler technique checked in primary care in the year before their death. Furthermore, 17% of those who had been admitted to hospital, did not have documented evidence that their inhaler technique had been checked during their admission.[1] We know that suboptimal inhaler technique in COPD makes the medication less effective, yet over 50% of patients with COPD are not able to use their devices correctly.[2] It is therefore vital that we assess and support inhaler technique to ensure people with lung disease get the most from their medication. We recommend it be checked at least annually, whenever medication is changed and/or if the inhaled medication does not seem to be working as expected. Inhalers are the foundation of care for people with many respiratory diseases, so inhaler technique checks must be conducted by appropriately trained individuals.

In order to reach more people with lung disease, the way in which we check inhaler technique needs to adapt. A face to face consultation using a systematic review process, like the Seven Step approach, is considered the most effective way to confirm if a patient can use their inhaler device(s). However, COVID-19 has meant this has been impossible to do and even before the constraints of COVID-19, many people did not have their inhaler technique checked[3]. Therefore, virtual consultations may help expand the total number of inhaler technique checks carried out.

The use of virtual inhaler technique optimisation has increased due to the COVID-19 restrictions, but this style of consultation should be continued post pandemic for appropriate patients.

Recommendation: Inhaler technique optimisation must remain an essential component of care for people with asthma and/or COPD

Recommendation: Observing a person demonstrate how they use their inhaler face-to-face is supported by the largest evidence-base, so remains the preferred method of assessment

Video consultations

Alternatives such as video-enabled and telephone consultations are most effective for those who are already familiar with their devices. They are currently of limited use for new patients, if patients are unable to improve their technique remotely so require a change in device, or when the patient cannot use video call technology. Therefore, a video consultation is a valuable resource for assessing inhaler technique for some patients. Clinicians should ask the patient to use their inhaler as they would normally, and thus allow them to assess and provide patient specific advice to optimise their technique. It is also helpful to have placebo devices to demonstrate correct inhaler technique to the patient.

The evidence to support optimising inhaler technique via video consultations is promising. Thomas et al. 2017 showed videoconferencing to be acceptable and feasible for many patients, and demonstrated an improvement in technique, self-reported adherence and quality of life.[4] Similar results were reported by Trosini-Desert et al. 2020, where patient errors were identified at a similar rate during video calls as those completed in person.[5] Further studies are required.

Recommendation: A video-enabled consultation can support patients who cannot be seen in person. It will be helpful in improving technique with devices patients are already familiar with or establishing that a change in device is necessary. Patients receiving multiple device types are more likely to make errors

Telephone consultations

If neither a face to face nor a video consultation can be conducted, a limited inhaler technique assessment can occur by phone. Table 1 below makes some recommendations for questions that can be asked to explore each step, but you may need to clarify and/or paraphrase to ensure that the question has been understood and the key messages agreed.

Recommendation: A telephone consultation can provide an opportunity to reinforce the importance of optimal inhaler technique and allow the healthcare professionals and patients to talk through their technique to identify areas/steps that require improvement

Risk stratification: the need for a face to face consultation

Carrying out a well-structured, virtual consultation is more beneficial than no review. It should help identify patients who need more support and will benefit from further input remotely or a face to face consultation.

Video enabled or telephone consultations may provide satisfactory reassurance that someone is using their inhaler optimally but are not suitable for everyone. Using video consultations, you will be able to see errors that require adjustment to optimise technique. However, if consulting with a patient by telephone and they cannot verbalise how they use their inhaler device, a face to face appointment may be necessary. If patients are found to need an alternative device, a follow up face to face consultation will need to be agreed.

After any virtual consultation the patient should be directed to online resources and encouraged to view, such as the patient inhaler videos hosted on Asthma UK website.

Recommendation: Video/phone consultations can be used to identify patients who should be prioritised for face to face appointment

Recommendation: After every consultation, but particularly those completed virtually, the healthcare professional should recommend the patient look at online resources such as the patient inhaler videos hosted on Asthma UK website. Encourage them to reflect on the conversation, write down questions/concerns and discuss these with their health care professional

Carrying out a virtual consultation

While healthcare professionals routinely receive training in communication and consultation skills, this does not necessarily include the specificities of telephone communication and consultation. Different skills are required for this task as there is no direct patient contact, body language is lost, and you may not know the patient. In a telephone consultation setting you need to do this using communication skills that involve only speech and hearing. How we ask the questions may help or hinder the patient from giving us the information we need to know.

Examples of the type of questions that could be used with your patient during a telephone inhaler technique consultation.

1. **Ask open ended questions to establish how well they are currently managing with their inhalers**

a. **What inhalers are you using?**
- Check the patient's prescription record to confirm what inhalers the patient should have
- What inhalers do you currently use? Compare with what the patient is actually prescribed.
- Check if asthma patients have a clean spacer for emergency inhaler use (if using MDI)

b. **How are you getting on with your inhalers?**
- Patients are more likely to make errors if they have multiple device types. Do they have a combination of aerosol and dry powder inhalers?
- If on mixed inhaler types is there one type of inhaler that you like better? If we can, would it be easier for you if you are on one type of device, so you use the same way to inhale? Ask them to try breathing in "quickly and deeply" (DPI) or "slowly and steadily" over 3-5 minutes" (aerosols).
- How do you feel about the inhalers you currently use? Do you feel that they work? Do you trust/like your inhalers?

c. **How often do you use the inhaler(s) you have?**
- How often are you using your reliever (usually blue) inhaler?
- How do you get on using your preventer/maintenance inhalers every day?

d. **Have you noticed any side-effects from your inhaler(s)?**
- Do you suffer from tremors, cramps and/or does your heart beat race? This can be a sign of sub-optimal inhaler technique or overuse of a SABA or LABA inhaler.
- Do you suffer from thrush in your mouth (white coating of the tongue) and/or a hoarse voice? Do you have a strange taste in your mouth? This can be a sign of sub-optimal inhaler technique or overuse of an inhaled corticosteroid inhaler.

2. **Educate them about the important of good inhaler technique**
- Discuss importance of using the inhalers as prescribed

- Discuss importance of getting the technique right – improve symptom control, reduce side-effects, may reduce exacerbations
- Explain that many patients use inhalers but often simple changes to how they use them can make differences to their condition.

3. **Ensure they have been shown how to use their inhaler and have had their technique checked recently (for telephone consultation)**

It is important to understand what patients have been told previously, but a further review is still required to ensure that the patient has understood correctly, and that further advice has been provided appropriately.

- Has someone shown you before how to use your inhalers?
- Has someone recently checked how you use your inhalers?

4. **Ask the patient to use their device. Using the seven steps checklist questions talk through those steps with the patient to assess their technique**

Example checklist questions for assessing inhaler technique remotely

To the best of our knowledge no reliable method has been established to evaluate and correct inhaler technique over the telephone. A study by Nelson et al (2011) evaluated a telephonic method of assessing and teaching inhaler technique[6]. Preliminary findings suggested value in this approach; however additional larger diverse studies are required. In this study after the participant used the inhaler, the pharmacist asked for a step-by-step explanation of how it was used. If the healthcare professional was unsure about the performance of any step, participants were asked specific probing questions to clarify.

The table below has been adapted from Nelson et al (2011) and incorporates the UKIG seven steps approach to assessing inhaler technique.

Step	Description	Example of Probing Questions for commonly prescribed Aerosol inhaler devices
1	Prepare the inhaler device?	What did you do with the cap on the mouthpiece? How were you holding the inhaler? Did you hold it upright?
2	Prepare or load the dose	What did you do with the inhaler before using it? For aerosol devices, did you shake the inhaler? How did you load the dose?
3	Breathe out gently as far as is comfortable, not into the inhaler	What did you do with your breath just before using the inhaler? Did you breathe out first?
4	Tilt the chin up slightly and put the mouthpiece in your mouth and close your lips around it	Were your lips closed around the mouthpiece? Was your chin slightly tilted up?
5	Breathe in: Slowly and steadily over 3 to	When you used the inhaler did you breathe in through your mouth or nose? When you breathed in from the inhaler, how many seconds did you

	5 seconds for aerosol type devices or Quickly and Deeply over 1-2 seconds for dry powder type devices	breathe in for? Can you breathe in for me as you would when using the inhaler? Listen to make sure it is slow and steady over 3-5 seconds.
6	Remove the inhaler from your mouth and hold your breath for up to 10 seconds or as long as possible	What did you do after inhaling through the device? Did you hold your breath and if so for how long?
7	Wait a few seconds then repeat steps 1-6 for a second dose, if needed, Close inhaler/replace lid	Do you always put the mouthpiece cover back on after use? This is important to stop things getting into the mouthpiece and you accidently breathing them in.

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