

## **Record of the Respiratory Procurement Advisory Group (RPAG) meeting held on 27 June 2019**

PHARMAC is releasing this record of the Respiratory Procurement Advisory Group.

The Respiratory Procurement Advisory Group met in June 2019, and a record of these meetings is provided below. This version has been prepared for proactive public release. In addition to the exclusion of some administrative details, some agenda items have not been included where PHARMAC would be entitled to withhold them under the Official Information Act 1982, due to privacy or commercial reasons (Official Information Act, sections 9(2)(a), 9(2)(b)(ii), 9(2)(ba)(i), and 9(2)(j)). A small number of sections within the agenda items that have been published have been withheld for the same reasons.

### **1. Welcome and introduction**

### **2. Declared interests**

(Withheld under section 9(2)(a))

### **3. Respiratory Inhalers Literature Discussion**

3.1. The Committee reviewed evidence around the suitability and patient preference of inhalers and the impact that this might have on adherence. The Committee reviewed the following articles:

- Lavorini et al. Switching from branded to generic inhaled medications: potential impact on asthma and COPD. *Expert Opinion on Drug Delivery*. 2013; 10:12, 1597-1602.
- Braido et al. Switching treatments in COPD: implications for costs and treatment adherence. *International Journal of COPD*. 2015; 3:12, 2601- 2608.
- Jahedi et al. Inhaler Technique in Asthma: How Does It Relate to Patients' Preferences and Attitudes Toward Their Inhalers? *Journal of Aerosol Medicine And Pulmonary Drug Delivery*. 2017; 1:3, 42- 52.
- Bjermer, Leif. The Importance of Continuity in Inhaler Device Choice for Asthma and Chronic Obstructive Pulmonary Disease. *Respiration*. 2014; 8:29, 346- 352
- Choraó et al. Inhaler Devices in Asthma and COPD an assessment of inhaler technique and patient preferences. *Respiratory Medicine*. 2014; 10:5, 968-975.

3.2. The Committee noted that the opinion article by Lavorini et al explored the potential impact of switching from branded to generic respiratory inhalers. The Committee noted that the authors suggested that inhaled products that include both a medicine and a device be referred to as hybrids instead of generics, which is in line with the European Medicines Agency. Members noted that generic inhaler use varies depending on current regulations on generic substitution, noting there is tight regulation and not many generics in the US, whereas switching where generics are available is mandatory in Germany and Finland, and is common in the UK, where switching between branded and generic respiratory inhalers is at the discretion of the dispensing pharmacist. Members noted that the Netherlands most closely reflects the current NZ market where patients can be switched to generics on prescription. The Committee noted the authors consideration that

implementation costs to switch patients may be high and should involve both the patient and physician.

- 3.3. The Committee noted that two small studies (Chang et al. N Z Med J. 2007; 120:U2872 and Reti. N Z Med J. 2006; 119:U2276) explored the impact of switching from Ventolin to Salamol bronchodilators reported different findings around use. Members noted that the Reti study, which considered an Asthma Control Questionnaire to assess asthma stability, found that 17% of participants prematurely withdrew from the study, and the study reported that asthma stability was worse with Salamol compared to Ventolin. In contrast, the Committee noted that Chang et al used forced expiratory volume to test the efficacy of the inhalers and found no difference in bronchodilator response to Ventolin or Salamol. Members noted the risk of loss of compliance if patients lose confidence in a product and considered that patients need to be involved, engaged and appropriately trained on the new product during any changes.
- 3.4. The Committee reviewed a review article by Braido et al regarding the switching of treatments for COPD and possible implications. Members noted the article reached similar conclusions as the Lavorni et al article, and reported that when the inhalation technique is correct, all inhalers are effective, but noted that this was based on older data. Members noted that the study suggested there were direct and indirect costs associated with switching inhalers, including loss of adherence, impact on health quality of life, broader health resources and loss of control. Members noted the article referenced a 2005 study that found that over 90% of clinicians thought that switching patient's dry powder inhalers would impact adherence if the patient was not involved in the choice of device. Members noted a potential weakness of the article is that the impact of switching between brands of dry powder inhaler was not assessed. The Committee noted and agreed with the authors that that close monitoring and correction of technique is critical. Members noted that people may be looking for a new and improved treatment option, but considered that good medicines are available, and the focus should be on improving use and monitoring via disease control.
- 3.5. The Committee reviewed the results of a research study by Jahedi et al that aimed to determine whether positive attitudes towards inhalers and the use of preferred devices improves inhaler technique. Members noted that the majority of asthma patients in the study did not use their inhaler correctly as per stringent enforcement of method and that there was no relationship between correct inhaler technique and patient perception or satisfaction with inhalers or having a choice of device. Members noted that there was a disconnect between the patient need for education and interest in engaging with education around inhaler use. The Committee considered that there may be possible biases in the data due to the small study size, the recruitment method and gender ratio and no measurement of disease control was included.
- 3.6. The Committee reviewed a review article by Bjermer et al that considered the factors that are important when considering inhaler devices. Members noted that the article referenced a systematic review that concluded that when inhalers are used correctly, the outcomes are the same regardless of the inhaler type. Members noted that up to 90% of patients use their inhaler incorrectly, and that 33-69% of educators are not able to adequately train patients, highlighting the need for education and training for both educators and patients.
- 3.7. The Committee reviewed a study by Choroa et al that evaluated frequency of inhaler technique errors, as well as the association between patient demographics, perceptions and preferences and inhaler technique. Members considered that this study reached similar conclusions to the finding by Jahedi et al but was a larger study with recruitment through university instead of pharmacy. The Committee noted that that inhaler technique

was poor and training regarding use of respiratory inhalers for asthma and COPD, and noted that investment in education and training could provide an opportunity for changes to be made to funded inhalers within New Zealand. The Committee considered that there was overall and use of a participants' preferred inhaler was not associated with less errors. Members considered that most inhalers in the study were dry powder inhalers, while metered dose inhalers are used more commonly in New Zealand. The Committee noted the level of academic education was not correlated with better technique, but patient understanding of asthma was correlated to less errors. Members considered this highlighted the requirement for training for everyone, and no assumptions should be made regarding training requirements.

- 3.8. The Committee considered that the literature highlighted a number of key messages, including the importance of correct inhaler technique and that most patients are poorly trained and incorrect use of inhalers across all types is high, with no inhaler being identified as superior for technique or error rate. Members noted that patient preference or confidence is not associated with good technique and noted that the length of time a patient has been using an inhaler for is negatively correlated with inhaler technique.
- 3.9. Overall, the Committee considered that the literature highlighted that education was critical given the low rates of correct use of any inhaler and this is much more significant than patient preference of any particular inhaler type. Confidence in correct technique is a poor predictor of actual correct technique. Implementation and training programmes should accompany brand changes for respiratory inhalers may actually lead to improved outcomes. Members also considered that inhaler switching is already happening, either at the pharmacy level, or when patients change treatments, for example switching from an ICS to an ICS + LABA inhaler.
- 3.10. Members considered there was a substantial unmet need for investment in education potential confusion among health professionals and consistent information is not currently being relayed to patients. Members also considered that suppliers should be responsible for providing accurate and clear instructions and that instructions provided by suppliers with their inhalers should be sufficient to ensure correct usage.
- 3.11. The Committee noted that current advertising does not mention spacers, even for inhalers designed for use by children and noted that the instructions that come with inhalers do not include any information or instructions on how to use the inhaler with a spacer, even though use with a spacer is 80% more effective than without one.
- 3.12. The Committee discussed the best place for education and training to occur and considered the benefits and disadvantages of this taking place during visits to the GP, at pharmacy, or through community educators. Members considered that the request for a new prescription for inhaler often occurs at the end of a consultation with a GP when the patient is sick due to an illness unrelated to their asthma or COPD, meaning it is unlikely that proper education takes place. The Committee considered that pharmacies are also a key place for education and considered that while asthma community educators are important for training, they generally do not see those with mild or moderate asthma who are otherwise healthy. Members noted that one opportunity for checking on technique and training could be when people come in for their influenza vaccine and need to wait in the clinic for 20 minutes.

**4. Withheld under section 9(2)(ba)(i)and/or 9(2)(b)(ii) and/or 9(2)(ba)(j)**

## 5. Suitability of Respiratory Inhalers

5.1. The Committee considered the most important suitability considerations of respiratory inhalers that impact on patient adherence and health outcomes. Members considered that good instructions, that include information regarding use with spacers is important.

Withheld under section 9(2)(b)(ii)

5.2. The Committee considered that brochures and instructions that are available in numerous languages, that are easy to read with clear messaging are important because they form critical component of training on technique, particularly where this information is not consistently available from other sources.

5.3. The Committee considered that the ease of use of inhalers is important, as some patients may struggle with dexterity, and noted that inhalers should be easy to grip and not require too much strength. If strength is necessary for inhaler use, inhalers should be able to be used with a Haleraid device.

5.4. The Committee considered that inhalers should be easily identifiable, with clear differences between reliever inhalers and preventer inhalers.

5.5. The Committee considered that it should be obvious when the inhaler canister is empty, noting that inhalers have more propellant than medicine and will appear to still contain medicine even though only propellant is being released. Members considered that dose counters are very important and considered that they should be accurate and readable. Members considered that a colour change in the dose counter when it is empty would be useful, particularly for those that are visually impaired.

5.6. The Committee considered that it would be useful to have information on the plastic canister, and noted that even with different colours, patients do not always remember which is for what purpose and get them mixed up. Members considered that at minimum the plastic canister should allow enough room for the pharmacist to add a label.

5.7. The Committee noted that in New Zealand the colour of the inhaler has been and is still being used to identify preventer and reliever inhalers. Members considered changing to brands of inhalers that have different preventer and reliever colours associated with them could cause confusion but considered that there were numerous issues with relying on inhaler colour to identify the correct inhaler. Members considered that there were a number of different inhaler types, and in general practice prescribers instead ask patients to identify which inhaler they are currently using. The Committee noted that due to the range of funded inhalers currently available in New Zealand, using colour as an identifier is problematic and potentially confusing due to overlap between inhaler colour and treatment. For example, Members noted that although blue has traditionally been associated with relievers there is now a preventer combination inhaler that is also blue.

5.8. The Committee discussed that the Asthma and Respiratory Foundation has moved away from referring to colours in guidelines and education and now use the wording preventer and reliever.

Withheld under section 9(2)(b)(ii)

Members considered that having identifiable features on places other than the cap is important, and easily identifiable information should be on the plastic and the top of the canister itself.

- 5.9. The Committee considered patient groups that should be considered regarding suitability of different brands of inhalers and considered that it would be important to consider individuals with impaired vision, dexterity and strength issues, and ensure that inhalers are compatible with spacers and facemasks. Members considered that some ethnic groups may be more challenged regarding instructions, and therefore the availability of brochures in multiple languages would be important.
- 5.10. The Committee considered what information they would like from PHARMAC if a brand change is likely to occur as a result of the RFP for fluticasone and fluticasone with salmeterol MDIs, and requested to see a specific plan for an education strategy for consumers, clinicians and educators, from prescribing to dispensing. Members also considered they would like to see a timeframe for the change, and requested a sustained commitment over a number of years. Members considered it would be useful to gather data regarding patient experiences and monitor the number of hospitalisations, noting it would be useful for PHARMAC in order to demonstrate that there was no significant impact as a result of the change.