

## EXAMPLE: CASE SCENARIO – ORAL THRUSH

### Case-based discussion (CbD)

**Key themes** Respiratory; asthma; MDI/inhaler technique; oral thrush; OTC medicines; antifungal medicines

#### Scenario in prose

The intern pharmacist is involved in a pulmonary rehabilitation clinic education session provided by the medical centre attached to the pharmacy. The clinic provides information in a group setting to patients with COPD and asthma, providing information and education on their medications and correct use of spacers and inhalers. During the session, a new patient to the clinic questions the intern as to whether her inhaler is working as it has been giving her a “funny taste” in her mouth. On inspection her mouth and tongue are covered with white plaque like lesions. The intern discusses with her correct inhaler technique including rinsing after use of a steroid inhaler and suggests, Nilstat® (Nystatin) drops to treat the oral thrush.

#### History of presentation

Elaine has been using Seretide®250/25 MDI and salbutamol MDI as prescribed by her doctor for one month. She describes being able to taste the inhalant and has started to notice a metallic taste when she eats. When asked to demonstrate her inhaler technique Elaine struggles to co-ordinate her breathe and the actuation of the puffer, likely resulting in the aerosol not reaching the lung and landing in her mouth. Elaine also notes she is not always rinsing her mouth out after using her inhalers as she often forgets. Elaine’s mouth and tongue is covered in thick white plaques indicative of oral thrush.

#### Medications

- Fluticasone 250mcg; salmeterol 25mcg (Seretide 250/25) MDI – 1 puff twice daily, commenced 1 month ago
- Salbutamol 100mcg/dose MDI – 2 puffs every 4 to 6 hours prn, commenced 1 month ago
- metformin XR 500mg – 1 tablet in the morning
- hydrocortisone cream 1% – applied prn for dermatitis flare
- mometasone nasal spray 1 spray in each nostril daily (for use in spring commencing 2 weeks prior to allergy season)

#### Patient information

- Elaine Milanovich
- 68-year-old female

#### Medical history, including allergies and adverse drug reactions

- asthma – recent diagnosis
- seasonal allergic rhinitis
- dermatitis
- type 2 diabetes mellitus

#### Relevant history

- Lives with her husband in her own home.
- Is ambulant and independent with daily living including managing her medications

Performance Outcomes (PO)<sup>1</sup> to be demonstrated

Performance outcome(s)	Description
3.7	assessing current health, medical and medication histories, and profiles of patients
3.8	formulating and implementing health, medical and medication management plans in collaboration with patients, carers, and other health team members
3.9	formulating and implementing appropriate monitoring of the outcomes of health, medical and medication management plans and adjusting them where appropriate in collaboration with patients, carers, and other health team members
3.10	facilitating patient self-management of health through education, intervention, monitoring and health promotion services in order to optimise patient health outcomes and wellbeing, and reduce the risk of complication

*The activity may also provide evidence relating to other performance outcomes and this should be recorded in the ‘Intern assessment and feedback form’*

<sup>1</sup>Case-based discussion: Preceptor and intern user guide. [Intern Workplace-based Assessment | Australian Pharmacy Council.](#)

## Key activities undertaken

<p><b>Patient consultation</b></p> <p><i>Intern undertakes consultation with patient in a private area</i></p>	<p>The intern:</p> <ul style="list-style-type: none"> <li>• obtained a relevant health, medical and medication information from the patient</li> <li>• was able to largely assess the patient's current health, medication, and medical history to formulate a diagnosis of oral thrush formulated an appropriate recommendation of treatment for the oral thrush and was able to identify other medications that can be used in the treatment of thrush</li> <li>• Identified relevant measures for the patient to prevent oral thrush in the future through correct inhaler technique and oral hygiene</li> <li>• does not clearly explain to the patient how long they should use the oral antifungal treatment for</li> <li>• does not consider other potential contributing factors to developing oral thrush such as history of diabetes and current glycaemic control.</li> <li>• discusses their thought process with the preceptor pharmacist as they determine the safety and appropriateness of supplying nystatin to treat oral thrush.</li> </ul>
<p><b>Joint decision for CbD</b></p>	<p>The preceptor and intern agree this would be a good activity for a case-based discussion. The preceptor advises the intern to prepare for the discussion.</p>
<p><b>Case presentation</b></p> <p><i>Intern presents case and discusses with preceptor</i></p>	<p>Presentation of the case by intern using <i>ISBAR</i><sup>2</sup> format covers the following key information:</p> <ul style="list-style-type: none"> <li>• Elaine is a 68-year-old female attending a pulmonary rehab clinic. She presented with a complaint about oral symptoms (taste changes) she has been experiencing since commencing Seretide®250/25 MDI and salbutamol MDI one month ago.</li> <li>• Elaine does not feel her inhalers are working and she has an unusual taste in her mouth which she also notices when eating. On further inspection Elaine's mouth and tongue are covered in thick white plaques.</li> <li>• Elaine was recently diagnosed with asthma and has a history of seasonal allergies and dermatitis. Elaine has recently started on inhalers and on demonstration it was found she does not coordinate the breath/actuation optimally when using her puffer, and has not been routinely rinsing her mouth out after inhaler use.</li> <li>• the persistent symptoms described by the patient have been diagnosed by intern/pharmacist as oral thrush, due to incorrect inhaler technique and hygiene, that needs appropriate treatment and management</li> </ul> <p>Intern recommends Nilstat® drops for treatment of thrush and use of a spacer to assist with inhaled medicine delivery and to prevent future episodes of thrush. Intern recommends rinsing mouth after using inhaler(s).</p>
<p><b>Discussion</b></p>	<p>Key elements of discussion</p> <ul style="list-style-type: none"> <li>• Optimal inhaler use including use of a spacer device.</li> <li>• Differential and diagnosis of oral thrush including causes and treatment</li> </ul> <p>Potential additional questions about the case</p> <ul style="list-style-type: none"> <li>• Under what circumstances would the patient need to be referred to a GP?</li> <li>• What other medical conditions can present with similar oral symptoms?</li> <li>• How long is Nilstat® (Nystatin) used for in the treatment oral thrush, providing reasons for this recommendation?</li> <li>• Would you do anything different to treat the patient with oral thrush if they have dentures?</li> <li>• What medical conditions can increase the risk of oral thrush in patients?</li> <li>• What questions could you ask this patient to determine if they had controlled diabetes?</li> </ul>

<sup>2</sup> "ISBAR" <https://www.safetyandquality.gov.au/sites/default/files/migrated/ISBAR-toolkit.pdf>

<b>Feedback and Assessment</b>	At the end of the discussion, the preceptor pharmacist provides the intern with written and verbal feedback and completes the case based discussion intern assessment and feedback form. The preceptor's feedback (summarised below) describes the strengths that the intern had demonstrated and suggests some opportunities to develop their practice further.
<b>Development Plan</b>	The intern then documents a development plan as agreed with the supervisor. The plan should be SMART (Specific-Measurable-Achievable-Relevant-Timebound).

<b>Performance outcome(s)</b>	<b>Preceptor feedback and expectations of Intern**</b>
<b>3.7</b>	The intern was able to largely assess the patient's current health, medication, and medical history to formulate a diagnosis of oral thrush
<b>3.8</b>	Formulated an appropriate recommendation of treatment for the oral thrush and was able to identify other medications that can be used in the treatment of thrush
<b>3.9</b>	Intern could improve their understanding of medical conditions and/or increase their awareness of patient groups whereby a person may be more susceptible to developing oral thrush such as pregnancy, immunocompromised patients and in this case diabetes.
<b>3.10</b>	Intern communication with the patient about ongoing monitoring and follow up could be improved by providing additional information such as how long the oral antifungal treatment should continue after symptoms of oral thrush have cleared.

*\*\*Note that the feedback and expectations of the Intern should consider and be tailored to the stage of training of the Intern.*