**Activity 3:  Case Study - Mia Brown & Sally Brown**

You will be exploring the situation and nursing care of Mia Brown in the following case study using the clinical reasoning cycle. Your tutor will take a few moments with you to review the clinical reasoning cycle.

**Meet Mia and Sally**

We met Mia in the Pre-Tutorial Case Study, but here is a reminder of her background. Mia Brown is a 5-year-old child presenting to the emergency department with her mother Sally Brown on the advice of their general practitioner (GP). Mia has become increasingly short of breath (SOB) and has had cold-like symptoms including a cough and runny nose for three days. Sally also took Mia to the GP yesterday who diagnosed a viral cold and stated to present to the emergency department if it got worse. Mia has become increasingly unwell over the last few hours. Mia was diagnosed with small airway disease about a year ago and had one exacerbation requiring hospital admission. Usually, she settles quickly with salbutamol via a metered dose inhaler (MDI) and spacer. Mia lives with her mother, Sally, and her father, Darren, in social housing. Their house is close to the local coal-fired power station but has good connections to public transport. Darren is currently unable to work following a workplace injury to his back so Sally has been picking up some extra shifts at the local restaurant where she works. The inability to work has caused Darren substantial stress and he has increased his consumption of tobacco cigarettes from five (5) per day to ten (10).

**Apply the Roper-Logan-Tierney Model**

Reflect on the work you have completed in pre-tutorial activity 5. As a class, consider some of the factors that are influencing Mia and Sally's situation and their activities of daily living according to the Roper-Logan-Tierney model of Nursing. Your tutor will use the image of the model below to guide the discussion

**Collecting cues and processing information**

Mia has been moved to an acute paediatric bed in the emergency department. You will be responsible for her care. You receive the following triage notes:

On assessment Mia is agitated and irritable, intercostal and subcostal recession noted, is using accessory muscles, nil tracheal tug, looks unwell, vomit at triage, decreased breath sounds in the lower lobes, and wheezing on expiration. HR 160, pink colouration, no complaints of pain, SpO2 92%RA, RR 45, temp 36.8, NKDA, IUTD, Weight 17kg.Last Ventolin x 3 puffs via a spacer given 30 minutes before presentation. Mia was diagnosed with small airway disease at 3 years of age. Mia was born six weeks early and weighed less than 2.5kg at birth. She was hospitalised in ICU at 18 months of age with SOB and has had frequent coughs and colds.

When you first speak with Sally she appears distressed as she

"has taken Mia to the GP 3 times over the past 2 weeks."

Your tutor will ask you to answer the following questions in pairs. Make notes to enable you to contribute to broader class discussions

1. What additional cues or information would you like to gather?
2. What are the indicators of risk for Mia?

**Identifying the problem and establishing goals**

There are significant and acute problems that are associated with the exacerbation of asthma. You may like to refer to the pathophysiology of asthma that was covered in the pre-tutorial activities. It could also be beneficial to access the management guidelines provided by Asthma Australia.

[Asthma Australia - Managing Acute Asthma in Children](https://canvas.newcastle.edu.au/courses/33743/files/8790642?wrap=1)[Download Asthma Australia - Managing Acute Asthma in Children](https://canvas.newcastle.edu.au/courses/33743/files/8790642/download)

[Asthma Australia - Initial Management of Life-Threatening Acute Asthma in Adults and Children](https://canvas.newcastle.edu.au/courses/33743/files/8790676?wrap=1)

1. Identify and prioritise the four (4) acute problems that are present in Mia's situation. Connect these problems to the underlying pathophysiology of asthma
2. Develop and present one (1) SMART goal for each of the priority problems that you have identified. Refer to the diagram below when developing your SMART goal.

**Taking Action**

It is important to take action based on the goals you have set. Use your goals and the guidelines above to develop a plan of care for Mia. Your tutor will then ask you to discuss the plans with the class

**Evaluate outcomes**

Nurses must understand how to measure the impact of their interventions to support or recover the health of people in their care.

Evaluate the interventions that you have developed to support Mia and answer the following questions

1. How will you measure/observe if your interventions are working?
2. What would you see or expect to see?
3. What ranges, values, and behaviours would you observe (this includes test results and vital signs)?

REMEMBER: How you evaluate the outcome of your interventions should be linked to your SMART goals.

**The outcome for Mia and handing over care**

Mia has greatly improved. Her vital signs have stabilised and her requirement for salbutamol (Ventolin) administration has decreased to 4 puffs every two (2) hours via MDI. She is now being admitted to the paediatric ward for ongoing monitoring and management under the specialist medical team.

Work in pairs to develop a handover to the nurse in the paediatric ward that will be caring for Mia using ISBAR. The diagram below will assist you in constructing the handover.