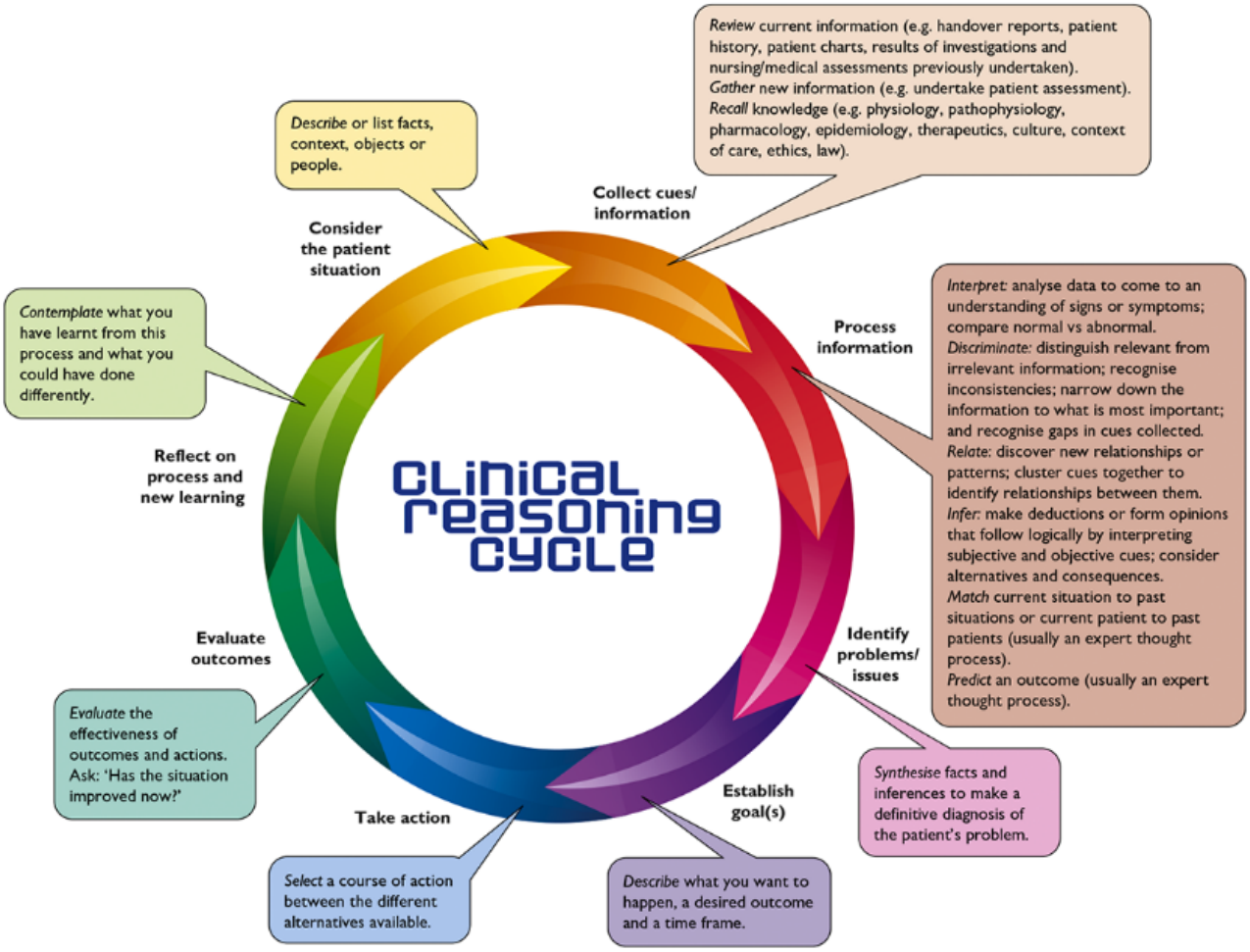
Clinical Reasoning Cycle

The Clinical Reasoning Cycle (CRC) helps nurses make decisions and plan patient care, and is based on the nursing process:

assessment → diagnosis → planning → implementation → evaluation

The Clinical Reasoning Cycle process with descriptors



Note. From *Clinical reasoning: What is it and why it matters*, by T. Levett-Jones and J. Smith, 2023, Pearson Australia.

Think of CRC as a process you follow with each patient:

- You obtain handover for a patient
- You assess them
- You plan their care
- You act on implementing their care
- Finally, you reflect on what worked and what you might do differently

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Full CRC Step-by-Step Guide

1. Patient Situation

Provide overview: This section briefly summarises key patient information.
"John Smith is a 68-year-old male, who was admitted to hospital with community-acquired pneumonia (CAP). He has a history of CAP and smoking...."

2. Collect Cues

Review: Revisit existing data (e.g., handover, charts, vitals, test results). Don't worry about repetition as some repetition is permitted. This section may contain *extra details* that have been included in the Patient Situation section, e.g. vital signs, pathology results, etc. *Do not introduce any new information here.*
Gather: What information is missing? Using evidence, suggest relevant assessments (primary, focused) or investigations (labs, imaging) to expand your understanding of the patient's condition. Make sure to remain *within* your scope of practice – for example, do not talk about taking blood tests if you have not been taught this skill.
Recall: Use your foundational knowledge in anatomy, physiology, and pharmacology to show your understanding of the situation.

3. Process Information

Interpret: Identify what findings are normal versus abnormal. You could also consider this based on the disease process. This step aims to make sense of the patient's presenting signs and symptoms.
Discriminate: Identify relevant versus irrelevant information. What do you think is the patient's major problem and what system or systems are being affected? Identify inconsistencies and gaps. What do you think is the most important thing?
Relate: Link symptoms and causes (e.g., cyanosis + SpO_2 88%). *Hint:* In preparation for writing this section, list all the signs and symptoms provided and the new information you gathered in the collect cues stage and look for things that can be paired together or have a relationship based on your knowledge.
Infer: Based on information gathered so far, what do you think is happening diagnostically? (e.g. dehydration is causing low BP).
Match: Compare the current situation with patient's past health experiences or with typical presentations of patients with similar conditions.
Predict: Anticipate likely patient outcomes, good or bad, or complications if no action is taken.

4. Identify Problems

Actual nursing diagnosis: "Impaired gas exchange related to CAP as evidenced by SpO_2 88%."
Risk nursing diagnosis: "Risk of fluid imbalance related to poor oral intake."

5. Establish Goals (SMART)

Specific: Target a particular outcome
Measurable: Can you assess when the goal has been achieved?
Achievable: Is it realistic?
Relevant: Related to identified problems
Time-based: Within a timeframe
Example: "Improve SpO_2 to ≥ 95% within 30 minutes."

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6. Take Action

Administer prescribed treatments
Perform nursing interventions (e.g. reposition the patient to improve work of breathing)
Monitor progress and adjust care as needed

7. Evaluate Outcomes

- Did the condition improve?
- Were goals met?
- What needs to change in the plan?

8. Reflect on the Process

- What were your strengths and weaknesses?
- What did you learn in the process?
- How will you improve your future practice?

Overview of the CRC Steps

Step	Key Question	Sample Text (Adapted from Levett-Jones & Bugeja, 2023)
1. Patient Situation Describe what you know about the patient; including identity, age, gender, diagnosis, medical history, and any information provided in the clinical scenario.	What do I already know?	Grace Simpson, an 80-yo-widow, has been admitted following a fall at home. Grace fractured her left neck of femur and is waiting on surgery to correct the fracture. Grace has a past medical history of osteoarthritis, total right hip replacement 18 months ago and type II diabetes. Grace has an allergy to morphine. Her vital signs are BP 150/88, HR 98 bpm (irregular), RR 12 bpm, SpO2 98%, Temp 36.2°
2. Collect Cues Review, gather and recall	Review (what are the most important cues)	Grace has a left NOF fracture and her vital signs are abnormal with her blood pressure being elevated, her heart rate is at the higher end of normal and her pain score is high. Grace is allergic to morphine and this will need to be considered by medical staff with prescribing analgesia, and nursing staff when administering analgesia.
	Gather new information (with rationale and support from the literature)	Undertaking a pain assessment using PQRST will assist in understanding Grace's pain and aid in treatment of it. Review the medication chart to assess any analgesia given and assess its effectiveness. It may be necessary to complete a blood glucose level to monitor Grace's diabetes, especially if she is fasting prior to surgery. You may also need to establish Grace's nutritional status, including weight, and how she manages her diabetes. A cardiovascular assessment is necessary to review Grace's blood pressure and irregular heart rate. An integumentary assessment should be undertaken to check for other injuries following the fall and any potential pressure injury.
	Recall knowledge	Recall of knowledge is demonstrated throughout this step and subsequent steps by providing appropriate rationale when reviewing cues and explaining what information will be gathered and why. Remember to include citations from literature as supportive evidence.

3. Process Information (with rationale and support from the literature)	**Interpret**	Grace's pain score is high which may be contributing to her blood pressure and heart rate.
	Discriminate	It is important to address Grace's pain and offer appropriate pharmacological and/or non-pharmacological pain relief. This is why it is important to establish what analgesia, if any, Grace has had. It is also important not to give her any morphine due to her allergy to this medication.
	Relate	Grace has a high pain score due to the NOF fracture, and this is likely affecting her blood pressure and heart rate. Grace's fracture following a fall and previous hip replacement may be related to her history of osteoarthritis. *Use information from the literature to explain these relationships/links*
	Infer	Administration of appropriate analgesia will help decrease Grace's pain and likely lower her blood pressure and heart rate.
	Match	Patients awaiting surgery for fractures are likely to experience pain related to the fracture and have limited ability to position themselves comfortably in bed.
	Predict	Grace's pain and comfort will improve post-surgical repair of her fractured NOF.
4. Identify Problems Form a nursing diagnosis (different from a medical diagnosis). (with citations)	What is the main health concern for this patient? What is a potential health issue for this patient?	Grace's current fracture and pain are her main health issues, and she needs regular analgesia and prompt surgical repair. The risk of pressure injury is a potential health issue for Grace due to her age, injury and inability to reposition herself.
5. Establish Goals Based on the problems identified, set SMART goals for care	What do I want to achieve?	The goal is to administer regular analgesia, so Grace has a pain score of 2 or less, both before and after surgery. To achieve this, nursing staff should assess Grace's pain every two hours and request further prescription for analgesia if the current regime is not adequate.
6. Take Action Take steps that directly address the goals (don't forget citations)	What should I do?	A numerical scale for pain severity as well as the PQRST method of pain assessment should be used for Grace. Use of a patient-controlled analgesia (PCA) pump will aid Grace in managing her pain, as will a multimodal analgesia regime.
7. Evaluate Outcomes Review the patient's potential response to interventions (with citations)	Will my actions work?	Grace will need continual pain assessments and review of the PCA to monitor her compliance with the PCA and its effectiveness.
8. Reflect on the Process Think about what you learned from implementing the CRC.	What did I learn?	Based on this case study, I developed a better understanding of the effects of pain on a person and how to manage pain using PCA and multimodal analgesia regime.

Further tips

Always check your Moodle instructions & marking guide/rubric:
Please note each assessment is different and there will be *specific* instructions in Moodle. So, make sure you read them thoroughly and use the marking rubric as a checklist.

Case study response structure:
There is usually a template provided for you to follow when applying CRC to a case study. But you may also be required to include an introduction and conclusion. If so, check out other helpsheets listed below that could assist with your writing skills, structure and how to incorporate evidence.

Oral Viva Assessment:
This guide will help you understand the CRC and how to apply it to an oral (viva voce) assessment where you discuss providing evidence-based, person-centered care to a patient based on a patient case scenario. You will be given oral assessment practice time during scheduled tutorials, and it is important that you make the most of this time to practice. The oral assessment relies on your knowledge and recall of patient conditions and the CRC. While you will not be required to state your sources (e.g. reference material such as textbooks or journal articles), you are required to have a solid understanding of patient conditions as covered in the content in your unit.

References

Levett-Jones, T., & Bugeja, B. (2023). Caring for a person experiencing pain. In T. Levett-Jones (Ed.), *Clinical reasoning: Learning to think like a nurse* (3rd ed., pp. 50-71). Pearson Australia.

Levett-Jones, T., & Smith, J. (2023). Clinical reasoning: What it is and why it matters. In T. Levett-Jones (Ed.), *Clinical reasoning: Learning to think like a nurse* (3rd ed., pp. 2-15). Pearson Australia.

Related helpsheets

- APA7 Referencing
- Essay
- University Speak

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