IpAC Unit
interprofessional ambulatory care unit

AUSTRALIA ECU EDITH COWAN UNIVERSITY

Importance of clinical reasoning

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Health Simulation Centre

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Background

Ebright et al (2003, p. 631) states that health care professionals '*need to manage complexity in the midst of a changing environment'.* The failure to ensure adequate thought and clinical reasoning can have a negative impact on a patient's condition (Aitken, 2003). According to Levett-Jones et al (2010, p. 515) clinical reasoning is the method in which health care professionals *'collect cues, process the information, come to an understanding of a patients' problem or situation, plan and implement interventions, evaluate outcomes and reflect on and learn from the process'.* In basic terms, clinical reasoning is a term which describes the process used by health professionals to make informed decisions about and solve problems arising in patient care.

Clinical reasoning in clinical practice

Health care professionals need to be flexible in their approach to decision-making and ensure continuity of care. The health care professional's ability to provide safe, high quality health care can be dependent on their ability to reason, think and judge, which can be limited by lack of experience (Benner, Hughes, & Sutphen, 2008). Simmons (2010, p. 1155) states that '*clinical reasoning is a complex cognitive process that uses formal and informal thinking strategies to gather and analyse patient information'*. This process is reliant on the health care professional using both their intuition and knowledge to influence decision-making for individual client circumstances. The experience and knowledge of the health care professional is an important consideration in the consolidation of clinical reasoning.

Simmons (2010) considers this by suggesting that newly qualified nurses, for example, may identify fewer cues, have difficulty identifying complex diagnosis and may not re-evaluate data as often as experienced nurses. This has the potential to have a negative impact on patient care. Hamm (1991, cited in Round, 2001) agrees that the clinical situation and the practitioner's knowledge and clinical experience could impact on the clinical reasoning employed and its efficiency. However, an individual's extensive experience could be irrelevant if faced with a situation that they have not previously been exposed to. Thompson and McCaughan (2002) conclude that a good clinical decision is one that takes into account the current best practices, considers patient preferences and is undertaken by experienced health professionals.

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Teaching clinical reasoning

Teaching clinical reasoning can be difficult to facilitate in an educational setting due to the lack of clinical context. Many of the traditional styles of teaching introduce decision-making processes as a method of 'pattern recognition'. This relies on the health care professional to draw upon past experiences to re-examine them in light of the 'new' clinical scenario (Boyd, 2011, p. 574). The concern with utilising some traditional decision-making processes is the use of 'checklists' to formulate clinical reasoning and decision-making and by doing so fail to apply critical analyses to evaluate outcomes (Boyd, 2011). The use of Simulated Learning Environments (SLE) has been increasingly adopted to address this criticism and to support the clinical teaching of necessary skills required for safe and competent practice. SLE enables health care professionals to be exposed to clinical reasoning strategies and encourages them to explore the predisposing factors and draw upon interprofessional experience to enhance the decision-making process. This is all carried out in a protected environment so that all issues can be openly explored without the time pressures that health professionals face in the clinical setting. In a position statement from the Australian Medical Association (2011), the writers suggest that SLE allow clinical teams to learn and practice together, leading to a reduction of anxiety and enhanced assurances for the management of effective patient care.

Clinical reasoning process

In clinical practice, many medical decisions are complex and are dependent on countless internal and external factors. Therefore it is useful for health care professionals to follow a formal decision-making tool. Commonly used tools include the '*Decision Tree'* (Round, 2001, p. 110) and the '*Clinical Reasoning Cycle'* (Levett-Jones, et al., 2010) These tools allow the health care professional to make choices through a systematic process which considers many clinical predisposing and contributing factors. Simmons (2010) relates clinical reasoning tools as following a forward chaining process that moves sequentially through a series of logical considerations to end at a final decision.

According to Jones (1988), when working through the processes of clinical reasoning the health care professional will identify a specific health problem/care need and the adoption of a clinical reasoning cycle facilitates the 'thinking' behind the clinical management plan. This has been referred by Jones (1988) as 'goal driven' patient care.

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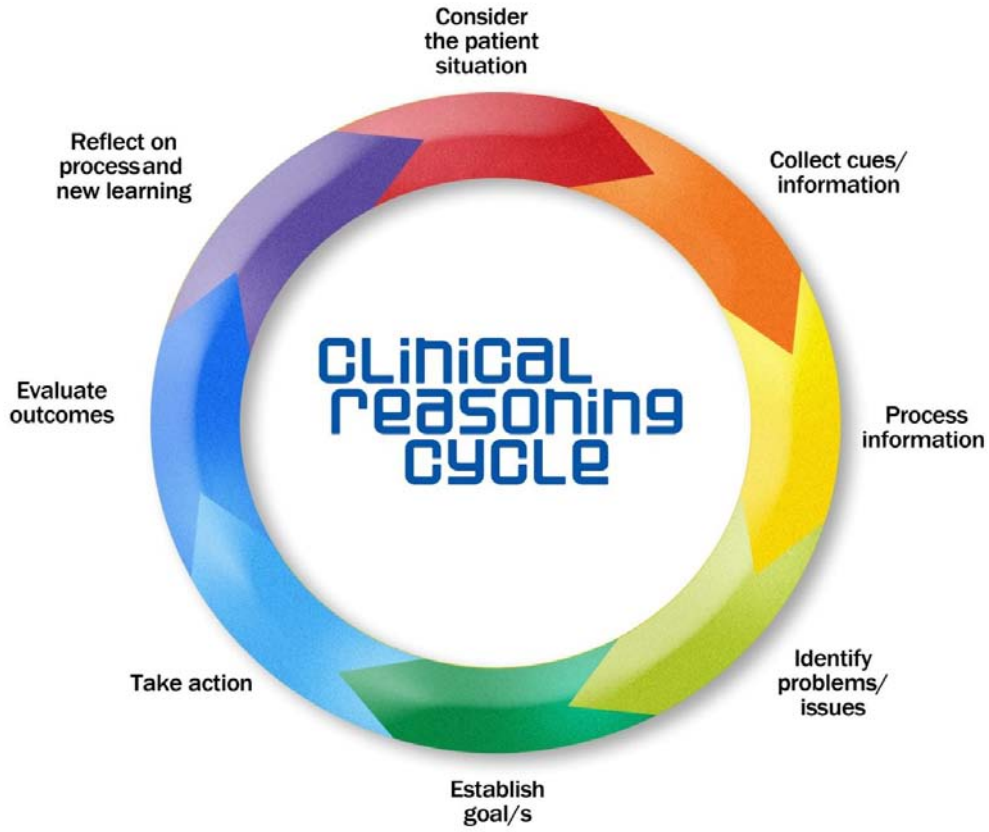
The Clinical Reasoning Cycle

The Clinical Reasoning Cycle requires health care professional to examine and discuss the steps in a clockwise direction to facilitate decision-making, enabling the clear formulation of a care plan (Levett-Jones, et al., 2010). This cycle has been applied in the current scenario involving patient Russell Stanton. The thought processes of the care team who was caring for Russell will be explored through application of the Clinical Reasoning Cycle to demonstrate how this decision-making process is used in practice.



Source: (University of Newcastle, 2009)

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The Clinical Reasoning Cycle

Step 1: Consider the patient situation

Step 2: Collect cues and information

Review the client's current medical history and gather specific information on the present activity/treatment.

Step 3: Process information

Recognise the changes in the patient's condition. In doing so, try and distinguish between the changes that need immediate intervention and changes that should be considered for future care. Look to see whether there are any relationships between the changes, particularly relating it to past experiences. Predict a possible expected outcome.

Step 4: Identify problems and issues

Examine the facts to establish a definitive diagnosis.

Step 5: Establish the goal/s

Make a plan of care with specific outcomes which relate to a realistic time frame.

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Step 6: Take action

Carry out the plan of care.

Step 7: Evaluate outcome

Review the patient's condition to see whether they have improved.

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Step 8: Reflection

Consider the treatment given and establish what you have learnt, what went well and what could be improved.

Conclusion

Clinical reasoning is an informed decision-making process that is being increasingly recognised as important for health care professionals working within a complex health care environment and caring for the increasingly multifaceted care needs of their patients. The ability to problem solve has been found to become more sophisticated with increasing clinical experience. However, the use of formal decision-making tools such as the ôClinical Reasoning Cycleõoutlined in detail above, facilitates sequential problem solving that allows health care professionals of all abilities and levels of experience to better assess, develop and implement the best care for their patients.

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