

CC5 Decision making and clinical reasoning

To progressively develop the ability to formulate a diagnostic and therapeutic plan for a patient according to the clinical information available		
To progressively develop the ability to prioritise the diagnostic and therapeutic plan		
To be able to communicate the diagnostic and therapeutic plan appropriately		
Knowledge	Assessment Methods	GMP Domains
Define the steps of diagnostic reasoning	Mi, C, ACAT	1
Interpret history and clinical signs	E, Mi, C, ACAT	1
Conceptualise clinical problem	E, Mi, C, ACAT	1
Generate hypothesis within context of clinical likelihood	E, Mi, C, ACAT	1
Test, refine and verify hypotheses	E, Mi, C, ACAT	1
Develop problem list and action plan	Mi, C, ACAT	1
Recognise how to use expert advice, clinical guidelines and algorithms	E, Mi, C, ACAT	1
Recognises the need to determine the best value and most effective treatment both for the individual patient and for a patient cohort	E, Mi, C, ACAT	1, 2
Define the concepts of disease natural history and assessment of risk	E, Mi, C, ACAT	1
Recall methods and associated problems of quantifying risk e.g. cohort studies	E, Mi, C, ACAT	1
Outline the concepts and drawbacks of quantitative assessment of risk or benefit e.g. numbers needed to treat	E, Mi, C, ACAT	1
Describe commonly used statistical methodology	E, Mi, C, ACAT	1
Know how relative and absolute risks are derived and the meaning of the terms predictive value, sensitivity and specificity in relation to diagnostic tests	E, Mi, C, ACAT	1
Skills		

Interpret clinical features, their reliability and relevance to clinical scenarios including recognition of the breadth of presentation of common disorders	C, ACAT	1
Recognise critical illness and respond with due urgency	C, ACAT	1
Generate plausible hypothesis(es) following patient assessment	C, ACAT	1
Construct a concise and applicable problem list using available information	C, ACAT	1
Construct an appropriate management plan and communicate this effectively to the patient, parents and carers where relevant	C, ACAT	1, 3, 4
Define the relevance of an estimated risk of a future event to an individual patient	C, ACAT	1
Use risk calculators appropriately	C, ACAT	1
Apply quantitative data of risks and benefits of therapeutic intervention to an individual patient	C, ACAT	1
Search and comprehend medical literature to guide reasoning	AA, C	1
Behaviours		
Recognise the difficulties in predicting occurrence of future events	E, C, Mi, ACAT	1
Show willingness to discuss intelligibly with a patient the notion and difficulties of prediction of future events, and benefit/risk balance of therapeutic intervention	E, ACAT, C, Mi	3
Be willing to facilitate patient choice	E, C, Mi, ACAT	3
Show willingness to search for evidence to support clinical decision making	E, C, Mi, ACAT	1, 4
Demonstrate ability to identify one's own biases and inconsistencies in clinical reasoning	E, C, Mi, ACAT	1, 3

Level Descriptor	
1	<p>In a straightforward clinical case:</p> <p>Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence</p> <p>Institutes an appropriate investigative plan</p> <p>Institutes an appropriate therapeutic plan</p> <p>Seeks appropriate support from others</p> <p>Takes account of the patient's wishes</p>
2	<p>In a difficult clinical case:</p> <p>Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence</p> <p>Institutes an appropriate investigative plan</p> <p>Institutes an appropriate therapeutic plan</p> <p>Seeks appropriate support from others</p> <p>Takes account of the patient's wishes</p>
3	<p>In a complex, non-emergency case:</p> <p>Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence</p> <p>Institutes an appropriate investigative plan</p> <p>Institutes an appropriate therapeutic plan</p> <p>Seeks appropriate support from others</p> <p>Takes account of the patient's wishes</p>
4	<p>In a complex, non-emergency case:</p> <p>Develops a provisional diagnosis and a differential diagnosis on the basis of the clinical evidence</p> <p>Institutes an appropriate investigative plan</p> <p>Institutes an appropriate therapeutic plan</p> <p>Seeks appropriate support from others</p> <p>Takes account of the patient's wishes and records them accurately and succinctly</p>
Emergency department context	
1	<p>Records differential and final working diagnosis in all patients</p> <p>Is selective in using investigations in standard cases and records the results in all cases</p> <p>Documents and acts on patient's wishes</p>
2	<p>States reason for investigations where used</p>

	<p>Recognises unexpected abnormalities and seeks help in interpretation</p> <p>Selective differential diagnosis offered in most standard cases</p> <p>Recognises need to access hospital notes in long term conditions</p>
3	<p>In complex cases – provides most likely diagnoses and follows explicit rule in/rule out strategy for investigations</p> <p>Selects treatments for most likely diagnoses rather than treating all possibilities</p> <p>Uses common emergency medicine calculators to enhance risk assessment and decision making</p>
4	<p>Adjusts differential diagnosis in the light of results of investigations</p> <p>Offers alternative diagnoses to others during supervision and supports them in rule in / rule out strategy</p> <p>Uses full range of decision making strategies (intuitive, analytical, heuristic, causal etc) in response to different presentations</p>
Leadership	<p>Specialty trainees should demonstrate competence in all elements of domains, with some evidence in setting direction</p>
Demonstrating personal qualities	<p>Avoids pre-assessment bias arising from nurse assessment, or other factors</p> <p>Demonstrates awareness of possibility of other bias in diagnostic reasoning</p>
Working with others	<p>Supports other trainees in rational use of investigations and decision making **</p> <p>Ensures others consider important alternative diagnoses where high risk presentations **</p>

<p>Managing the service</p>	<p>Accepts working diagnosis and acts in patient's best interest</p> <p>Responds to missed diagnoses by appropriate investigation and action plans</p> <p>Ensures action plans from unplanned events are completed *</p>
<p>Improving services</p>	<p>Provides training in decision making for doctors and nurse practitioners ***</p> <p>Ensures decision support tools are available where appropriate ***</p> <p>Enables access to online calculators *</p>
<p>Setting direction</p>	<p>Promotes patient choice and provides information for trainees on legal framework around capacity and choice</p>