

## Extension Seminar in Laboratory Tests

### Program

**Self-paced learning package:** Available from Friday 17 January 2025

The self-paced learning package materials must be completed prior to attending the live virtual seminar. Knowledge gained from topics below within self-paced learning package will be directly used in case sessions on the day.

Topic and presenters		Learning objectives
Part 1	<p><b>Use of laboratory data in clinical practice</b></p> <p><b>Professor Jeff Hughes</b>, <i>Professor, School of Pharmacy, Curtin University of Technology, Perth, WA; Chief Scientific Officer, PainCheK Ltd, Sydney, NSW</i></p>	<ul style="list-style-type: none"> <li>Describe laboratory test data used to evaluate the appropriateness of drug therapy</li> <li>Assess therapeutic outcomes and disease progression using laboratory test data</li> <li>Describe laboratory test data used in the assessment and prevention of adverse drug reactions</li> </ul>
	<p><b>Sodium</b></p> <p><b>Karl Winckel</b>, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> <li>Understand the presentation, causes and risks associated with hypo/hypernatraemia</li> <li>Understand management options for hyponatraemia in terms of:               <ul style="list-style-type: none"> <li>Appropriate treatments including cessation of causative drugs</li> <li>Benefits of treatment</li> <li>Risks of treatment or under-treatment</li> </ul> </li> </ul>
	<p><b>Potassium</b></p> <p><b>Karl Winckel</b>, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> <li>Understand the presentation, causes and risks associated with common serum potassium disturbances</li> <li>Understand management options for serum potassium in terms of:               <ul style="list-style-type: none"> <li>Appropriate treatments including cessation of causative drugs</li> <li>Benefits of treatment</li> <li>Risks of treatment or under-treatment</li> </ul> </li> </ul>

	<p><b>Magnesium</b></p> <p><b>Professor Jeff Hughes</b>, Professor, School of Pharmacy, Curtin University of Technology, Perth, WA; Chief Scientific Officer, PainCheK Ltd, Sydney, NSW</p>	<ul style="list-style-type: none"> <li>• Understand the presentation, causes and risks associated with hypomagnesemia</li> <li>• Understand management options for hypomagnesemia in terms of:             <ul style="list-style-type: none"> <li>○ Appropriate treatments including cessation of causative drugs</li> <li>○ Benefits of treatment</li> <li>○ Risks of treatment or under-treatment</li> </ul> </li> </ul>
Part 2	<p><b>Acid-base balance</b></p> <p><b>Professor Jeff Hughes</b>, Professor, School of Pharmacy, Curtin University of Technology, Perth, WA; Chief Scientific Officer, PainCheK Ltd, Sydney, NSW</p>	<ul style="list-style-type: none"> <li>• Describe laboratory test data used to evaluate the appropriateness of drug therapy</li> <li>• Assess therapeutic outcomes and disease progression using laboratory test data</li> <li>• Describe laboratory test data used in the assessment and prevention of adverse drug reactions</li> </ul>
	<p><b>Urea and creatinine</b></p> <p><b>Bhavini Patel</b>, Executive Director Medicines Management, Research, NT Executive COVID-19 Vaccine Lead, NT Health, Darwin, NT</p>	<ul style="list-style-type: none"> <li>• Identify people at greatest risk of kidney disease</li> <li>• Explain the diagnosis and classification of acute and chronic kidney disease</li> <li>• Discuss the advantages and limitations of different markers of kidney function</li> </ul>
	<p><b>Calcium and phosphate</b></p> <p><b>Jess Lloyd</b>, Team Leader Pharmacist, Renal and Transplantation, Princess Alexandra Hospital, Brisbane, Qld</p>	<ul style="list-style-type: none"> <li>• Evaluate the normal ranges for calcium and phosphate and their variation within the normal range</li> <li>• Describe the measurement and interpretation of these laboratory tests, and the influence of commonly used drug therapy on them</li> <li>• Describe the relevance of further laboratory test investigations</li> <li>• Describe monitoring requirements for a patient with kidney disease</li> </ul>
	<p><b>Liver function tests</b></p> <p><b>Professor Jeff Hughes</b>, Professor, School of Pharmacy, Curtin University of Technology, Perth, WA; Chief Scientific Officer, PainCheK Ltd, Sydney, NSW</p>	<ul style="list-style-type: none"> <li>• Describe laboratory test data used to evaluate the appropriateness of drug therapy</li> <li>• Assess therapeutic outcomes and disease progression using laboratory test data</li> <li>• Describe laboratory test data used in the assessment and prevention of adverse drug reactions</li> </ul>

<b>Part 3</b>	<p><b>Troponin and creatinine kinase</b></p> <p><b>Karl Winckel</b>, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> <li>• Understand what troponin and creatinine kinase (CK) are</li> <li>• Understand the role and limitations of troponin and CK in the diagnosis and management of acute coronary syndrome (ACS)</li> </ul>
	<p><b>Coagulation lab tests</b></p> <p><b>Karl Winckel</b>, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> <li>• Understand the simplified coagulation cascade</li> <li>• Why different coagulation test results are used for different anticoagulants</li> <li>• Discuss the limitations of coagulation tests in the clinical use of DOACs</li> </ul>
	<p><b>Haemoglobin, red cells, and iron studies</b></p> <p><b>Bhavini Patel</b>, <i>Executive Director Medicines Management, Research, NT Executive COVID-19 Vaccine Lead, NT Health, Darwin, NT</i></p>	<ul style="list-style-type: none"> <li>• Explain the relevance and significance of derangements of individual components of full blood count and iron study laboratory tests</li> <li>• Distinguish between a picture of iron deficiency anaemia and other types of common anaemia based on laboratory tests</li> </ul>
	<p><b>White cells and acute phase reactants</b></p> <p><b>Professor Jeff Hughes</b>, <i>Professor, School of Pharmacy, Curtin University of Technology, Perth, WA; Chief Scientific Officer, PainCheK Ltd, Sydney, NSW</i></p>	<ul style="list-style-type: none"> <li>• List multiple reasons for elevation and reduction of white cells and acute phase reactants</li> <li>• Apply this knowledge of the tests discussed to various clinical situations</li> </ul>
	<p><b>Natriuretic peptide</b></p> <p><b>Karl Winckel</b>, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> <li>• Explain the role of natriuretic peptides in the diagnosis and management of heart failure</li> </ul>

## Extension Seminar in Laboratory Tests

### Program

**Live seminar:** Saturday 1 March 2025

*All times listed are in AEDT*

Time (AEDT)	Session
0920-0930	Online login available
0930-0940	<p>Welcome, introduction, housekeeping</p> <p><b>Karl Winckel</b>, Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</p>
0940-1030	<p>Introduction to laboratory tests and Perfect partners: why certain lab tests are partnered</p> <p><b>Karl Winckel</b>, Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</p> <p><b>Courtney Hill</b>, Medical Team Leader Clinical Pharmacist, Princess Alexandra Hospital, Woolloongabba, Qld</p>
1030-1130	<p>Case session: Liver function tests</p> <p><b>Case lead: Courtney Hill</b>, Medical Team Leader Clinical Pharmacist, Princess Alexandra Hospital, Woolloongabba, Qld</p>
1130-1150	Break
1150-1305	<p>Case session: Kidney disease</p> <p><b>Case lead: Jess Lloyd</b>, Team Leader Pharmacist, Renal and Transplantation, Princess Alexandra Hospital, Brisbane, Qld</p>
1305-1335	<p>Case session: Infectious diseases</p> <p><b>Case lead: Kathlin Tunnah</b>, Advanced Training Resident, Infectious Diseases, Queensland Health, Qld</p>
1335-1345	Break
1345-1515	<p>Case session: Cardiac Disorders</p> <p><b>Case lead: Adam Livori</b>, Lead Pharmacist – Medicine and Continuing Care, Grampians Health; PhD Candidate – Centre for Medicine Use, Monash University, Melbourne, Vic</p>
1515-1530	Break

1530-1600	<p><b>Case session: Coagulation</b></p> <p><b>Karl Winckel</b>, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>
1600-1615	<p><b>Summary and close</b></p>
1615-1620	<p><b>Close of live virtual seminar</b></p>

***Please note: presentation recordings from the live virtual seminar will not be available.***