

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>Use of laboratory data in clinical practice</p> <p>Professor Jeff Hughes, <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"> Describe laboratory test data used to evaluate the appropriateness of drug therapy Assess therapeutic outcomes and disease progression using laboratory test data Describe laboratory test data used in the assessment and prevention of adverse drug reactions
	<p>Sodium</p> <p>Karl Winckel, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> Understand the presentation, causes and risks associated with hypo/hypernatraemia Understand management options for hyponatraemia in terms of: <ul style="list-style-type: none"> Appropriate treatments including cessation of causative drugs Benefits of treatment Risks of treatment or under-treatment
	<p>Potassium</p> <p>Karl Winckel, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i></p>	<ul style="list-style-type: none"> Understand the presentation, causes and risks associated with common serum potassium disturbances Understand management options for serum potassium in terms of: <ul style="list-style-type: none"> Appropriate treatments including cessation of causative drugs Benefits of treatment Risks of treatment or under-treatment

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

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

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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>Karl Winckel, 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>Karl Winckel, Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</p> <p>Courtney Hill, Medical Team Leader Clinical Pharmacist, Princess Alexandra Hospital, Woolloongabba, Qld</p>
1030-1130	<p>Case session: Liver function tests</p> <p>Case lead: Courtney Hill, Medical Team Leader Clinical Pharmacist, Princess Alexandra Hospital, Woolloongabba, Qld</p>
1130-1150	Break
1150-1305	<p>Case session: Kidney disease</p> <p>Case lead: Jess Lloyd, Team Leader Pharmacist, Renal and Transplantation, Princess Alexandra Hospital, Brisbane, Qld</p>
1305-1335	<p>Case session: Infectious diseases</p> <p>Case lead: Kathlin Tunnah, Advanced Training Resident, Infectious Diseases, Queensland Health, Qld</p>
1335-1345	Break
1345-1515	<p>Case session: Cardiac Disorders</p> <p>Case lead: Adam Livori, Lead Pharmacist – Medicine and Continuing Care, Grampians Health; PhD Candidate – Centre for Medicine Use, Monash University, Melbourne, Vic</p>
1515-1530	Break
1530-1600	Case session: Coagulation



	Karl Winckel, <i>Education and Training Pharmacist, Princess Alexandra Hospital, Brisbane, Qld</i>
1600-1615	Summary and close
1615-1620	Close of live virtual seminar

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