

## 2020/2021 UQ Summer Research Project

<b>Project title:</b>	Prescribing and administration trends of intravenous and subcutaneous insulin during pregnancy at the Royal Brisbane and Women's Hospital
<b>Number of positions available:</b>	1 - 2
<b>Location</b>	Royal Brisbane and Women's Hospital - Herston Campus
<b>Project duration:</b>	8 weeks
<b>Preferred start date</b>	1 December 2020
<b>Description:</b>	<p><b>Aim</b> To investigate current insulin dosing, administration and monitoring of insulin at the RBWH</p> <p><b>Objectives</b></p> <ul style="list-style-type: none"> <li>• To undertake a retrospective analysis of current prescribing, administration and monitoring trends of insulin</li> <li>• To identify type of errors in prescribing, administration or monitoring of insulin</li> <li>• To formulate a set of recommendations to address trends in prescribing, administration or monitoring errors for insulin</li> </ul> <p><b>Background</b> Serious patient safety incidents involving insulin frequently occur and insulin errors are among the top high alert medicines worldwide. Hypoglycaemia resulting from insulin is an important cause of hospital admissions and is common in hospitalised patients. A statewide audit of diabetes practice in inpatients was conducted in 2019. This demonstrated substantial deficits in the quality of care in patients with diabetes, including high rates of prescribing and management errors, poor attainment of glycaemic targets and high rates of hypoglycaemia in patients treated with insulin. However, this audit did not examine the practice in pregnant patients with diabetes and there is currently no data from Australia that has assessed the quality of diabetes management in these patients. This study would address this gap in the literature.</p> <p>The study will involve identifying baseline trends in insulin prescribing, administration and monitoring. This will be undertaken retrospectively looking at medical records and insulin charts (both intravenous and subcutaneous administration). The study will investigate adherence to current hospital policy and guidelines in relation to insulin prescribing, administration and monitoring. In addition, the study will identify errors and if possible the source of errors. Part of the study will be to formulate a series of recommendations to address trends in errors highlighted by the study.</p>

<p><b>Expected outcomes and deliverables:</b></p>	<p>The applicant can be expected to gain an understanding of good research project design, data collection and analysis of results by undertaking the following:</p> <ul style="list-style-type: none"> <li>• To undertake comprehensive EndNote training via PACE UQ library</li> <li>• To create a comprehensive EndNote database on the subject area</li> <li>• To develop the skills required to effectively search relevant databases to create a comprehensive literature review on the subject</li> <li>• To design an effective documentation tool to gather data</li> <li>• To design a suitable, excel spread sheet to collate and analyse data</li> </ul> <p>There will also be an opportunity to draft a manuscript for publication.</p> <p>The applicant will be expected to be onsite at the RBWH campus to undertake the research project. They will be expected to produce a final report and present their findings to the pharmacy/pharmacology department at the end of the project. There will also be opportunities for the following:</p> <ul style="list-style-type: none"> <li>• To attend clinical education sessions at RBWH pharmacy</li> <li>• To attend grand round sessions at RBWH</li> </ul>
<p><b>Suitable for:</b></p>	<p>This project is open to applications from UQ enrolled students in pharmacy from years 3 and 4.</p>
<p><b>Primary Supervisor:</b></p>	<p>Dr Karen Whitfield – Conjoint Researcher with School of Pharmacy  <a href="http://researchers.uq.edu.au/researcher/1915">http://researchers.uq.edu.au/researcher/1915</a></p>