



Title of PhD project	Impact of acute and chronic distress on medication adherence in patients with chronic kidney disease and multimorbidity	
Supervisor	Professor Dorothea Nitsch	LSHTM
Co-Supervisor	Dr Iain Carey	SGUL
Brief description of project	<p>Chronic kidney disease occurs in 10% of the UK population, and it is more common in people of older age. People with chronic kidney disease often have multiple health conditions, including chronic pain and/or depression.</p> <p>We recently showed that people with chronic kidney disease who are affected by partner bereavement will be more likely to be admitted to hospital with heart failure or acute kidney injury compared to people who are not bereaved (PLoS One. 2021;16(9):e0257255).</p> <p>Unfortunately, bereavement will be more common as a result of the pandemic. Bereavement is just one form of (often acute) distress, but there are other forms of distress that may show similar associations (e.g. stress related disorder, having a very ill spouse). It is important to understand how to support people who live with chronic conditions such as chronic kidney disease who suffer distress.</p> <p>This PhD aims to identify who amongst the people with chronic kidney disease is most vulnerable to the effect of distress, and potential pathways for intervention.</p> <p>In terms of vulnerability, we are interested in factors such as social deprivation, underlying mental health issues, suffering from chronic pain, ethnicity and gender.</p> <p>Depending on the cause of partner bereavement, the patients may be already distressed prior to the partner's death, in other cases the shock of losing a loved one is acute as the death was sudden. A better understanding of vulnerability will enable targeted support of particular patient groups post bereavement.</p>	

	<p>A potential pathway by which poor outcomes occur may be that patients who suffer distress are less likely to adhere to medication or attend appointments.</p> <p>Throughout the PhD the student will work with patient representatives to make this work patient relevant. This project will carry out a literature review on what is known on acute and chronic distress in chronic kidney disease. Data analyses using large routinely collected health datasets will investigate who is most vulnerable to the effects of distress and which potential factors mediate the association with poor outcomes. Findings from this project will inform planning of better health care delivery for distressed patients.</p> <p>The student will use UK routine health data but also work with Danish colleagues at Aarhus university using Danish data to see whether similar associations emerge in Denmark, a separate health setting.</p>
Skills we expect a student to develop/acquire whilst pursuing this project	<p>Literature searching and reviewing skills Ethics applications and data governance Firm understanding of primary care routinely collected health data and what they can/cannot be used for. Data cleaning and data analysis skills Mediation analysis Patient engagement into research Academic writing</p>
Particular <u>prior</u> educational requirements for a student undertaking this project	<p>We would prefer the applicant to have had strong analytic skills, e.g. geography, economics, epidemiology or statistics at MSc level.</p>
Project key words	<p>Distress Health outcomes Multimorbidity Kidney disease</p>
Possible under 1+4 route? Master's options identified.	<p>Yes LSHTM – MSc Epidemiology LSHTM – MSc Health data science</p>
MRC Core Skills developed through this project	<p>Literature searching and reviewing skills Ethics applications and data governance Firm understanding of primary care routinely collected health data and what they can/cannot be used for. Data cleaning and data analysis skills Mediation analysis Patient engagement into research Academic writing</p>
MRC LID themes	<p>Health Data Science</p>

Further reading	<u>Adverse outcomes after partner bereavement in people with reduced kidney function: Parallel cohort studies in England and Denmark</u> <u>Increased Risk of Acute Cardiovascular Events After Partner Bereavement</u>
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