



Dr. Emily Rimmer

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Integrating Research with Clinical Care

Dr. Emily Rimmer has been fascinated by the specialty of hematology since early on in medical school; she loved the combination of laboratory and clinical medicine and the challenge of integrating a patient's symptoms and laboratory investigations to make a diagnosis and provide treatment recommendations. She feels it is a privilege to guide patients through a cancer journey.

Dr. Rimmer's career choice of pursuing research with clinical care is fueled by several motivating factors. First, as a dedicated scientist and lifelong learner, she possesses an unwavering passion for exploring and understanding the intricacies of how things function. This innate curiosity extends to her desire to enhance treatments and broaden our comprehension of diseases. Secondly, as a physician, she finds inspiration in patients who seek a deeper insight into their conditions and express a genuine interest in staying abreast of the latest treatment options. She aspires to actively contribute to the ongoing process of discovering and rigorously testing novel treatments, ultimately benefiting patients in the future. From early in her career, she discerned that advancing the field of medicine necessitates an emphasis on research. Research, in essence, provides a structured avenue for learning from and alongside patients, with the ultimate goal of refining the care provided to future generations of patients.

Currently, Dr. Rimmer is a co-principal investigator with Dr. Ryan Zarychanski of a Canada-wide pilot trial evaluating the use of Therapeutic Plasma Exchange in patients admitted to an intensive care unit with septic shock (PLEXSIS trial). In early 2023, their research team was awarded a 3-year operating grant from the Canadian Institute for Health Research to conduct this pilot trial.

Septic shock, a life-threatening infection, ranks among the leading causes of admission to intensive care units across Manitoba and Canada, often resulting in fatalities. Cancer patients, given their immunosuppressed states due to underlying diseases and chemotherapy, face an elevated risk of infections and septic shock. Beyond antibiotics and supportive care, few interventions exist to improve survival rates, highlighting the pressing need for novel treatments.

Therapeutic plasma exchange is a commonly used procedure that, if used in septic shock, could potentially save lives by removing harmful substances and replacing missing blood components serving to restore balance. Plasma exchange appears to demonstrate positive benefits in several published foundational studies.

The pilot study aims to enroll 80 patients at ten sites throughout Canada. The data provided by the pilot study will inform the design and conduct of an international multi-center randomized controlled trial that will inform best practices in the area of plasma exchange in septic shock. This innovative research program will set the standard for apheresis practice with the potential to improve patient care and survival in a disease with high mortality. With these studies, the team hopes to be able to predict which patients are most likely to benefit from plasma exchange so they can tailor treatments to the right patient at the right time.

Dr. Rimmer envisions a future in which CancerCare Manitoba expands its capacity for clinical trials across the province and the entire country. Her hope is for every patient to access the latest and most innovative treatments available. Ultimately, she aims to seamlessly integrate research and clinical practice, making participation in clinical trials the new standard of care.