Impact of remote patient management and monitoring system to support patients on automated peritoneal dialysis: One year on from implementation

Dr Asra Karim, Susan Sapayi, Nicola Oakley, Dr Lukas Foggensteiner, Dr Lavanya Kamesh
University Hospital Birmingham, Birmingham, United Kingdom

Introduction:
In December 2017, the Renal unit adopted remote monitoring system (Claria & Sharesource from Baxter) to support patients on automated peritoneal dialysis (APD). This system utilizes a secure two-way cloud-based platform that uploads patient’s treatment data and enables healthcare professionals to remotely review and make targeted changes. We presented our initial experience of transfer of 90 patients to remote monitoring and education of staff in UKKW 2018.

Aim:
One year on, we have 123 patients on remote monitoring. We undertook an evaluation and feedback from staff (healthcare professionals) and patients to assess the impact of the new system.

Methods:
The Sharesource software enables the option to set alerts (flags) when pre-defined dialysis related problems are met (e.g. lost dwell time). All staff received training on the Claria machine, its software and the management of flags. A virtual "flag clinic" was introduced to run twice a week when potential problems were identified and appropriate behavioural/technical or therapeutic changes made.

Feedback questionnaires were filled in by staff and patients on the utility of remote monitoring, the ease of use, patient education and impact on clinic visits. This data was captured and analyzed in Microsoft excel.

Results:

Feedback from dialysis staff: All staff were satisfied with the training process involved with the new system. All were confident that there was improved patient education around PD in general. 100% of staff felt that the use of remote monitoring reduced the number of drop-in visits to the PD unit. While there was a reduction of clinic visits, the staff noted more time was required for phone calls and on the flag clinics. The staff also commented on the high level interaction with patients, improved patient compliance and technique survival.

Patient Feedback: All patients had been on APD for more than six months. 77% of patients felt that Claria provided them with lot of confidence that medical staff could view their treatments remotely and help in early detection and resolution of problems. 88% were very satisfied with prescription changes been done efficiently and remotely and found this process very easy. 100% of patients found the new Claria system user friendly.

Conclusion:The introduction of remote monitoring has enabled the staff to make informed and timely clinical decisions in managing patients on APD. The use of virtual “flag clinics” promotes the use of technology in an efficient way whilst managing large number of patients on the remote monitoring system. In our experience the new system has resulted in a reduction in hospital visits, improved health care oversight and patient safety and better patient and staff satisfaction.