

Empowering patients to manage medications: Incorporating medication management strategies into an e-learning module

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Introduction

Medication adherence is essential for maximising the success of kidney transplantation. Non-adherence to immunosuppressive medications is associated with poor clinical outcomes such as increased rates of rejection and graft loss and adverse economic outcomes.^{1,2}

Medication non-adherence may be unintentional (e.g. forgetfulness or inadvertent errors or lapses) or intentional (e.g. deliberate decision not to take medications).

Unintentional medication non-adherence is amenable to strategies to improve medication management such as use of alarms or “cues”, dose administration aids and simplifying regimens where possible.

The development of e-learning modules provides an ideal platform to incorporate tools and tips on medication management in addition to traditional medicine specific information.

Aim

To describe the development of an interactive e-learning module containing information on managing complicated medication regimens in addition to medicine specific information for patients undergoing a renal transplant.

Methods

Development of interactive e-learning module

-  Formed an expert group including pharmacists, nephrologists & nurses to create and review content.
-  Reviewed health & medication related websites to identify content that could be included.
-  Engaged external vendor to design module including animations.
-  Developed content including medicine specific information and tools and strategies for medication management.
-  Filmed a video demonstrating how to fill a dose administration aid.
-  Content, design & animations continuously reviewed by patients & expert group.

Figure 1 – Development of interactive e-learning module

Results

A combination of text, audio, diagrams, pictures and animations were used to deliver the medication specific information.



Figure 2 - Screen captures of the Know Your Medicines After a Kidney Transplant module

Questions and activities such as selecting tacrolimus capsule strengths to make up a dose were incorporated throughout the module to engage patients and check their understanding of key messages.



Figure 3 - Screen capture of the selecting tacrolimus capsule strengths to make up a dose activity

In addition, two chapters were devoted to assisting patients to manage their medications post-transplant including the use of:

- Dose administration aids
- Medication apps
- Keeping an up to date list of medicines
- Establishing routines
- Setting alarms
- Storing and handling medications
- Travelling with medications

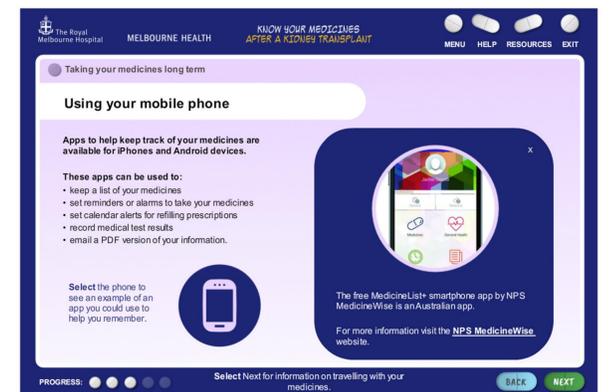


Figure 4 – Screen capture of using a mobile phone app to keep track of medicines

After being unable to locate a suitable resource, a video outlining the benefits of using a dose administration aid and demonstrating a systematic approach to filling the aid was created and incorporated into the module. Teaching patients to fill a dose administration aid in a systematic fashion is vital for reducing accidental errors.



Figure 5 – Image from video of demonstrating how to fill a dose administration aid

To emphasise the importance of taking medications post-transplant, statistics highlighting the increased risks of graft failure with medication non-adherence were included.

Patient and staff feedback throughout the development of the module was positive and invaluable in ensuring that the module met the needs of this patient group.

Conclusion

The development of an interactive e-learning module for patients post renal transplant provided an ideal platform to incorporate information on medication management in addition to medicine specific information.

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References

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