Enhancing HIV and Hepatitis patient management and research using purpose-built software solutions

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The Challenge

Many patients have complex health care needs requiring multiple health practitioners to assist with their care. This is particularly the case in the refugee population.

Each year about:

- 13700 Refugees settle in Australia
- 4000 Settle in Victoria

Refugees and immigrants often present with:

- Multiple medical conditions
- Limited english skills
- Low health literacy

Patients with HIV and viral Hepatitis often have similar challenges to receiving quality health care provision, including:

- Chronic medical conditions
- May require management by many health professionals
- Require care at multiple sites such as general practice and tertiary hospitals

The Victorian Department of Health and Human Services has funded refugee health programmes since 2009, including the Refugee Health Clinical Hub at The Royal Melbourne Hospital (RMH), Victorian Infectious Diseases Services (VIDS). The clinical hub project is a joint development between three tertiary hospitals and two software developers to improve health care for refugees by improving collaboration and facilitating research.
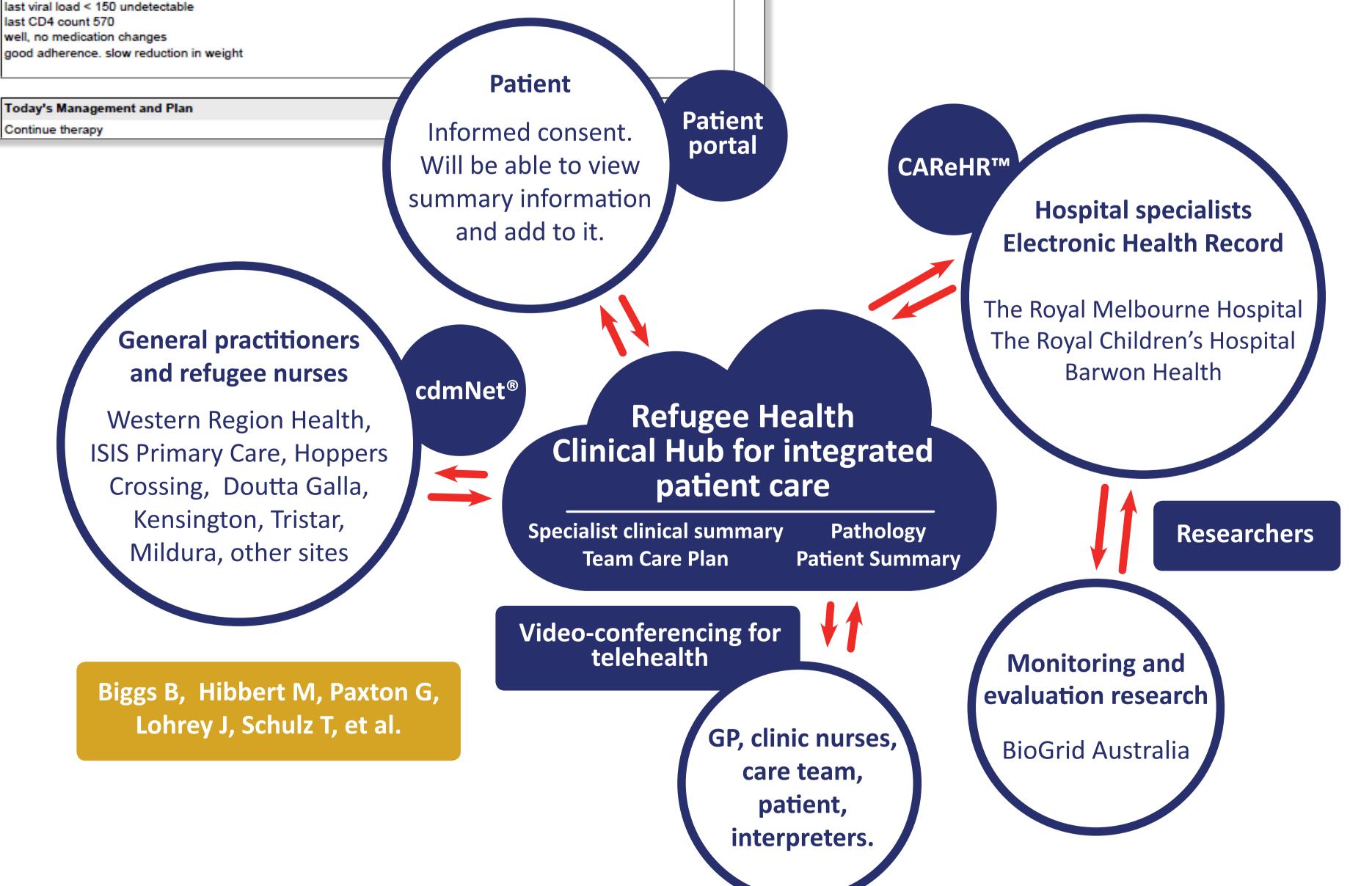
Methods

The CAReHR™ (Clinical Audit Research electronic Health Record) was developed:

- as a collaboration between clinicians and Arcitecta
- to address the need to provide complex health care to refugees
- adapted to improve the care of people living with chronic Hepatitis and/or HIV (many of whom are refugees)

A paper-based clinic record has been supplemented with this solution, which improves clinical management and enables the collection of de-identified data for research purposes.

Patients are managed onsite at RMH or alternatively remotely via a telehealth programme.

Acknowledgements

Example of an outpatient visit report generated at the end of each visit and faxed to the referring doctor or viewed online (if referring doctor is registered with cdmNet)

Results

1250 patients have been managed with CAReHR for over 3000 clinic visits since 2012, delivering:

- An electronic health record that can be configured by clinicians
- Electronic requesting of pathology
- Electronic prescribing
- Automatic development of modifiable clinic letters for referring doctors
- Consistent data collection
- The option of giving the patient a summary at the time of the appointment
- Letters for referring doctors being sent on the day of clinic visits
- The option of directly linking to other software systems (such as cdmNet®) allowing GPs to view clinic summaries online.

Conclusion

A bespoke software (CAReHR) has been developed for the refugee and immigrant population and adapted to be used with people living with HIV and Hepatitis.

This allows better clinical care for people living with chronic medical conditions and better communication between health professionals. This also allows for the collection of de-identified data for research purposes, which is uploaded to BioGrid (a federated data sharing platform for collaborative translational health and medical research) for easier research access. This improves patient care by improving the flow of information between patients, primary care, hospital specialists and other health professionals.