Conference Abstract

"SUGAMAMA" – GESTATIONAL DIABETES MOBILE 'APP' INNOVATION IN INTEGRATED CARE PROOF OF CONCEPT

Ruth Kaplan, Royal Hospital for Women, Australia

Correspondence to: **Ruth Kaplan,** Royal Hospital for Women, Australia, E-mail: Ruth.Kaplan@sesiahs.health.nsw.gov.au

Abstract

This proof of concept (POC) involves the user-centred design of a mobile application (app) and web-based system to promote self-management of women with gestational diabetes mellitus (GDM). During the brief period between diagnosis and birth we seek to maximise tight blood glucose control, known to impact on maternal and fetal outcomes. This is timely due to clinician burdens anticipated to increase by up to 30% with the adoption of new GDM diagnostic criteria. Incidence of GDM is on the rise due to the increasing percentage of overweight or obese pregnant women and the advancing age of first time mothers.

The system has been designed from the ground up by clinicians, patients and subject matter experts and is grounded in theory. It offers the opportunity for remote management of patients; individualised patient care plans; automatic upload of blood glucose measurements via Bluetooth; triage of patients based on pre-determined parameters; flagging of those at high risk; consultations and referral; tracking of diet, exercise, weight, fetal movements, appointments and medications; appropriate and accessible education and support to patients, including those with low health literacy; and recording of occasions of clinical service for billing purposes.

Care across acute and primary services and partnership with patients are supported. The system will integrate with secure messaging due to be introduced into the district. Patient's own mobile devices will be utilised. The app is expected to significantly reduce the number of clinic visits required by stable well-managed gestational diabetics. These cost saving can be fed back into the system. Clinicians will be freed from non-core activities such as administrative tasks and data entry, enabling them to work to their full scope of practice, creating efficiencies and greater job satisfaction. Local needs will specifically be addressed and local policies, procedures and guidelines embodied in the app. Through app use, patient and clinician behaviours will be aligned thereby minimising clinical variation and adverse outcomes.

The target population for the POC is English speaking women over the age of 18, diagnosed with GDM at RHW. A subsequent iteration of the app is planned to offer resources in additional languages. Primary stakeholders are: patient consumers; the RHW executive and diabetes service; Eastern Sydney and South Eastern Sydney Medicare Locals (representing community-based primary services); Information Management Services Directorate, South Eastern Sydney Local Health District (SESLHD); Clinical Efficiency & Evaluation Unit, SESLHD; and New South Wales (NSW) Health.

The POC will evaluate clinician and patient adoption of a novel model of care. Theories and methods stem from diverse areas of inquiry including: healthcare delivery; diabetes self-management; health informatics; patient educational technology; transformational learning; social cognition; health literacy; implementation science; social marketing; and commerce.

This is the first digital solution of its kind in Australia that we are aware of. Once the POC is successfully completed we aim to roll-out to other sites. There has been interest across our health district in adapting the model to diabetes and chronic disease in general. The system is due to go live in October 2014.

Keywords

gestational diabetes; self-monitoring; mobile; digital; implementation

---

PowerPoint presentation

https://www.conftool.net/integratedcare2014/index.php?page=downloadPaper&form_id=225