LEADING THE WAY FOR CONTINUITY OF CARE IN SINGAPORE

A PRESSING NEED

Singapore's population is ageing rapidly, accounting for the increased prevalence of chronic diseases such as diabetes and high blood pressure. The healthcare costs attributed to care for patients with chronic conditions are massive and are projected to rise in the years ahead.

Today, both community and institutional care providers face problems with continuity of care due to poor flow of patients' vital health information in the patient care cycle. Wide variation in EMRs and the level of adoption between hospitals, institutions and clinics contributed to the predicament. In Singapore, as in elsewhere, limited resources in manpower and physical beds meant that there is a compelling need to decant patients into step down care and to place patients in the right site of care. It is this shared vision between the government and the healthcare community, in partnership with private corporations, that has led to the pilot of the *Community Care Management Solution* (CCMS) at the Singapore General Hospital (SGH).

A BREAKTHROUGH SOLUTION

CCMS is a solution developed by HSA Global (HSA) to provide integrated electronic patient medical records from multiple healthcare organisations to facilitate continuity and consistency of care in the healthcare continuum. This solution incorporates clinical management tools and business process applications founded on Wagner's Chronic Care model which is a proven clinical framework for managing care of chronic illness at both individual and population level.

Delivered as a fully managed and hosted solution by Singapore Telecommunications Limited (SingTel), it is offered to healthcare organisations for a monthly subscription fee through the software-as-a-service model (SaaS) which eliminates the need for upfront capital investments in infrastructure. This innovative technical and commercial value proposition allows even small healthcare instituitions to afford enterprise-grade solutions.

A PIONEERING INITIATIVE

SGH, the flagship hospital of Singapore Health Services, took the initiative to pilot this next-generation healthcare information solution in partnership with SingTel and HSA. Led by the SGH Nursing Division, CCMS was piloted for more than six months across four inpatient wards, four specialist outpatient clinics (SOC), two polyclinics and in community settings. A nursing workgroup was formed to review how the quality and delivery of healthcare services could be improved for her patients, especially those with chronic conditions, through better integration of information, redesigning of clinical IT processes and optimisation of technology.

A/Prof Lim Swee Hia
Group Director, Nursing
Singapore Health Services

"The standardised usage of assessments, care plan, clinical documentation, measurements and results, and visibility of these care records by the inpatient, SOC and polyclinic nurses have provided a common language to evaluate patient's progress and to modify planned care activities to achieve the desired outcome for patients. With the ability to collect real-time statistics on both medical and nursing patients through CCMS, complete care information is available. This facilitates continuity of care from the institution into the community."

Applying stringent selection criteria, SingHealth nurses recruited 214 patients for the pilot. The continuity of care from SGH wards to SOC to SingHealth Polyclinics and onwards to homes in the CCMS pilot is illustrated in the graphic flow below.

From the pilot, CCMS is proven to enable the following:

CONTINUITY OF CARE

- Referral management, care assignment and 'No Show' reporting: CCMS has helped nurses to improve handoff and continuity of care. Patients' movements through the SingHealth continuum of care are visible to the nurses, allowing them to track and contact patients who defaulted on treatment for follow-up.

- Coordination of Care: CCMS facilitated care and task assignments which resulted in better coordination of care across wards, SOC and polyclinics. Each care provider is informed on the outstanding tasks for each patient and the list of patients who are scheduled for follow up care in their healthcare organisation.

CONSISTENCY OF CARE

- Standardized assessments and care plans: Common forms and care plans facilitated communication across the SingHealth continuum and helped the nurses to assess, plan and execute the care needed to achieve optimal clinical outcomes.

- Visibility of Patient Care: Case Managers now have visibility on patient care across the SingHealth continuum and are equipped with the tools to follow up with Nurse Clinicians on care delivery and management of complex cases.

MANAGEMENT OF CARE

- Report Builder: Nurses now have a tool to design and generate reports on demand. This helped to identify which group of patients needed more help.

This pilot has shown that the use of CCMS can facilitate continuity of care for patients by streamlining clinical management processes, care coordination and case management. The flow of care information across hospital ward, SOC, polyclinics or at homes made a real difference to patient care as care is now consistent and continuous. CCMS has helped SGH Nursing Division to extend the reach of nursing care beyond the walls of hospitals into the community to improve care outcomes, leading the way towards seamless care in the integrated healthcare continuum.

For more information on SingTel's Healthcare360 solutions, visit www.singtel.com/healthcare

Inpatient ward @ SGH

- *Patients are admitted into clinical programs organized by episodes*
- *Assessments, care plans, measurements, results and clinical notes are recorded*
- *Healthcare providers (e.g. wound care specialists, physiotherapists etc) are referred for consultation electronically via care assignments in the system*
- *Patients are transferred to step-down care facilities upon discharge through CCMS*

Re-admission statistics can be generated to track both cluster wide or patient specific re-admission rates.

SGH SOC & SingHealth Polyclinics

- *Patients who default on follow up care are reported to case managers who will then contact them*
- *Patients' health records are available on demand*
- *Follow up assessments, measurements & results are recorded to evaluate progress*
- *Care plan is modified by the attending nurse to achieve the desired outcomes*

Flow of essential information improves patient care coordination. Good follow up care prevents possible re-admission to the hospital.

Beyond Hospital Walls

- *The mobile module of CCMS enables caregivers to securely access and update patient records on location via the internet or mobile devices*
- *Care can be extended to bed-bound patients and the elderly at home or in day-care centres.*

In the future, patients will also be able to access their clinical records, personal care tasks, plans of care and test results via a personal health portal.