Tropical Cyclone Yasi: the role of Health Information Services during the evacuation of Cairns Base Hospital

Lisa Gardiner

On Thursday, 3 February 2011, Category 5 Tropical Cyclone Yasi crossed the Queensland coast near the townships of Cardwell, Tully and Mission Beach, causing widespread destruction to the surrounding areas and significant disruption to Queensland health services.

On Tuesday 1 February, the District Chief Executive Officer (DCCEO) advised via a forum in the auditorium at Cairns Base Hospital (CBH) that those patients who were unable to be discharged to their homes or into the care of their families were going to be transferred to Brisbane. This evacuation was expected to be accomplished before morning on Wednesday 2 February, with all departments to close and staff to vacate the hospital by mid-morning on 2 February. It was the first time in Queensland Health (QH) history that Corporate Office had directed the evacuation of a major regional hospital. Although no structural damage occurred at CBH and the hospital was able to re-open on Friday 4 February, many lessons have been learned from this experience and feedback from debriefing sessions is now being used to review the existing Disaster Management Plan to include an Evacuation Plan.

The following discussion outlines the experience of Health Information Services in three contexts: (a) evacuation of patients while ensuring availability of clinical information; (b) management of data in hospital information systems such as the Hospital Based Corporate Information System (HBCIS); and (c) the uplift of health information systems such as the Hospital Based Corporate Information System (HBCIS); and (c) the uplift of health information services during the evacuation of patients.

Evacuation of patients
A key consideration facing clinical staff prior to the onset of Yasi was whether patients could be sent home or would need evacuation to another facility. One of the directives given was that original patient records should accompany each patient who was being evacuated.

Even as we develop a current Evacuation Plan following feedback from the debrief sessions, the right consultation and the right questions need to be considered. For example, if we ask clinicians ‘Should the patient record go with the patient?’ the answer will more than likely be ‘Yes’. However, if we ask clinicians ‘What type of clinical information is needed for ongoing patient care?’ the response is likely to outline the types of information to be sent (as in a normal transfer). With tight time-frames usual for evacuation procedures, any plan to copy relevant information needs to be timely and ‘foolproof’. Some of the feedback received from debrief sessions has identified that during the Yasi evacuation:

- Clinical staff made use of the Enterprise Discharge Summary (EDS) software to ‘ramp up’ the availability of discharge information in an electronic format.
- With clear leadership, some clinical units were able to effectively establish a return or discharge plan and communicate with family prior to discharge.
- Administrative support staff were not effectively identified nor coordinated to provide assistance in the organisation of patients and their clinical information needs.
- There was inadequate identification of where patients were being transferred.
- Patient records did not always stay with the patient and when requests were received by Medical Records at Cairns Base to fax information of relevance, the original record was not on site.
- Health Information Managers (HIMs) were heavily involved in ensuring that patient records were returned to Cairns Base Hospital, especially when some patients were transferred back on commercial flights. The assistance of HIMs in other hospitals was highly beneficial. There was evidence that triage cards were used in some hospitals that received patients, and plastic covers were placed on CBH charts so that documentation relating to care in Brisbane was not placed in our record.

As a result of this feedback, suggestions for improvements that should be incorporated into a revised Disaster Management Plan have been formulated. It has been recommended that staff:

- document clinical criteria that informs patients to be evacuated, and whether patients should be sent to Brisbane or other facilities in the District
- utilise existing electronic ‘Journey Boards’ to create a manifest of patients, their mode of discharge and discharge destination
- mandate creation of Electronic Discharge Summaries during the course of all admissions
- ensure contact details of family or emergency contacts are updated (and audited) as part of normal practice
document in advance what clinical information needs to be copied or made available electronically to accompany patients being evacuated
- give consideration to original records accompanying patients such as SCBU and ICU clients (and establish clear mechanisms for timely return of patient records once information has been reviewed by clinical staff at transfer facility)
- establish administrative support teams with clear expectations and systems for producing copies of relevant information, with utilisation of available ‘transfer’ envelopes
- once relevant copies are made, ensure records are returned and tracked to the main Medical Records Department (MRD).

Management of HBCIS data
Given the directive that patient records would be accompanying patients, one of the first decisions made by HIMs was to create a record location to easily identify those records that had been sent off-site. A location code of ‘CYCLONE’ was created on HBCIS with the distribution of a very quick work instruction to all clinical areas. Other considerations included an ability to back up the Patient Master Index (PMI) and make this available via a USB device (with appropriate security), as well as ensure appropriate down time procedures were in place for registration and tracking of records for any new presentations, particularly in the alternative Emergency Department (ED) that was established off-site.

A gap in advice related to the discharge or leave of patients from HBCIS using either a status of ‘discharged home’ or ‘transferred to another facility’. This direction was still being discussed via our liaison person with the Emergency Operations Centre once the cyclone had passed and we were returning to business as usual.

Facilities in Brisbane, who received patients, had more robust processes in place, knowing that they needed to admit these patients to their HBCIS accounts.

Uplift of medical records: physical aspects
Curiously, one of the items of most interest for ‘die-hard’ medical record enthusiasts would be the directive given by the Executive Management team to literally ‘uplift’ the entire Medical Records Department, as we are currently situated on the ground floor behind ED. Our primary Medical Record Department (MRD) holds approximately 100,000 medical records and it was proposed that the uplift occur in a very short time frame. There had been no planning to date with regard to:
- where we should take the records
- how many staff would be needed to achieve this
- what other equipment or supplies might be needed such as boxes, trolleys, sandbags, black plastic
- what were the known risks and stability level of the Department to withstand a cyclone or tidal surge, what was the benefit of this move and could the department be sealed.

If the cyclone had hit Cairns more directly, the tidal surge may have crashed into the Department, destroying all shelving and records in its path. Alternatively, water may have come under doorways and presented a flood threat, so lifting the bottom one or two rows of files may have been enough to save them if this had happened. Thankfully, we did not have to find out as neither of these events occurred.

The local and state branch managers for Grace Records Management were invaluable as we attempted to box the bottom row of medical records and transport them on pallets to the first floor. However, the remaining six rows of records had to remain in the MRD. This exercise was hampered by the uncertainty of expectations and lack of a coordinated mechanism to relocate patient records. The estimated number of records that were boxed and moved is 21,000, using approximately 650 archive boxes. Boxes were labelled with terminal digit ranges and organised in the outpatients waiting area so that they could be accessed for patient care. As a matter of course, all these records were returned and placed back on shelves within 48 hours of the decision to uplift.

To safeguard against possible future cyclones and floods, strategies must be put in place to establish appropriate electronic sources of summary information, or to move Medical Record Departments away from basements and ground floors.

In summary
Communication, planning and coordination were principal areas of concern identified through staff debriefing sessions, including the identification of real risks and exploration of the most effective strategies through consultation with local staff who know their areas of expertise.

Lisa Gardiner  BBus(HlthAdmin), GradCert(HealthSci)
Manager, Health Information Services
Cairns & Hinterland Health Service District
PO Box 902 Cairns QLD 4870 AUSTRALIA
email: Lisa_Gardiner@health.qld.gov.au

An example of one full row of files out of the total 43 such rows of files (average of seven bays by seven shelves), across over 300 square metres of floor space.