Submission: Inquiry into Telehealth Services in Queensland with reference to Trauma, Burns and Emergency Surgery

Summary

The use of Telehealth by the Queensland Clinical Coordination Centre in the management of acute trauma in Queensland has been an outstanding advance in providing high quality care to patients in regional, rural and remote centres.

Further improvements in quality can be achieved by extension of those links into the tertiary and major regional hospitals; and to the appropriate specialist for immediate advice when he/she is off campus eg home after hours.

A number of head mounted video cameras with audio links are now available and should be trialled. The use of such devices should provide immediate high level advice and direction to the point of care.

No urgent inter-hospital transfer of a time-critical trauma patient should occur without the involvement of the appropriate consultant(s) or experienced Fellow at the receiving hospital.

Trauma

Most emergency Departments are linked to the Queensland Clinical Coordination Centre (QCC) allowing immediate

assessment by the retrieval specialist at the Centre, who can provide appropriate advice; activate the retrieval process; contact the receiving hospital and the appropriate specialist(s); and if indicated institute a conference call with them and the primary medical officer at the initial hospital.

The retrieval specialist can also after consultation arrange for appropriate specialists to accompany the team, where it is thought transfer without prior urgent surgical intervention would result in a poor outcome; when that expertise is not available at the first hospital.

Importantly, the retrieval specialist can question if the continued care and possible transfer of the patient is futile. After consultation with the appropriate specialist at the intended receiving hospital and review of the images, a palliative care pathway can be advised. The patient's family can thus be with the patient in the terminal phase. It avoids unnecessary risks to the retrieval crews. It also reduces unnecessary costs.

The QCC audit their cases examining events during the transfer process and the immediate aftermath. Where there are hospitals with robust Trauma Review Committees or other forms of clinical audit, issues identified in these processes such as inadequate notification are flagged and fed back to the QCC.

Current expansion of Telehealth in Queensland involves the placement of screens in the DEM and selected sites in the

operating theatre at the RBWH, linked to QCC. This would allow specialist staff to see the clinical situation at the point of care; provide advice and have a much better understanding of the case coming to them. The link should also be developed such that they can see at home after hours, rather than drive into the hospital. It is suggested that these links be developed to the other tertiary hospitals in Queensland.

Further support can be provided to the point of care by the introduction of such devices as Google Glass, Pixavi ImpactX and OrbitX; essentially either glasses or head mounted cameras with audio links for videoconferencing (see below).

Burns

The transmission of digital imaging in burn management is now standard of care and extremely beneficial to the care of the patient, as well as providing substantial savings, particularly in bed days. From July to December 2013, 295 bed days were saved. From January to April 2014, 161 bed days were saved, with a cost savings of approximately $139000. (Data – courtesy of the Stuart Pegg Burns Unit) The burn surgeon at the Stuart Pegg Burn Unit at the RBWH can assess the extent and depth of the burn wound; as well as give immediate advice re management, the surgeon can determine if the burn is sufficiently minor enough, that transfer is not required.

When the burn wound is small to moderate but still requires transfer for specialist burn care, the use of I-Phones etc has allowed better planning; the transfer can be arranged for the day before the planned operation list in some cases. Major burns, ventilated patients, those with other injuries, all of course require immediate transfer. The use of digital images has allowed follow up to be done in regional centres, without the patient having to come to Brisbane.

When escharotomies are required prior to transfer, the burn surgeon at the RBWH could via Telehealth provide some guidance re the appropriate site(s), length and depth, but this has not been utilized, as the Telehealth images do not provide enough detail to accurately access depth and extent of the burn wound, as compared to a digital image.

However, Telehealth has been used to support a decision to commence palliative care in a massively burned patient.

The extensive use of digital images in the clinical setting has raised questions about consent, storage, security, disposal and incorporation into the patient's record. An App such as PicSafe Medi might solve these issues around governance. It would be appropriate to have the governance around the use of digital imaging sit within the Clinical Access and Redesign Unit in the Health Systems Innovation Branch.

Emergency Surgery

There are a number of situations where regional surgeons, GP obstetricians, rural and remote senior medical officers may benefit from immediate surgical advice, provided by a consultant at a tertiary centre on a video link. Such situations could be the need to evacuate an extradural haematoma by a rural SMO, unexpected complications develop in an anticipated routine caesarean section by a rural GP obstetrician or a vascular emergency occurs in a regional hospital, where the surgeons do not have broad skills.

Providing expert advice to the point of care would be a further major advance in Telehealth. There are a number of possibilities. Many operating rooms have overhead lights which include a video camera. However the view is often obstructed by the surgeons head, shoulders etc. There are a number of devices now that provide high quality images such as Google Glass, Pixavi ImpactX and OrbitX with audio links. (See Attachment 1) A specialist at a tertiary centre could provide immediate advice in these emergency situations. The extension of Telehealth links via a Web based system such that the specialist can access off site would be extremely important in providing the highest quality of care.

Signed:- [redacted] 5th May 2014

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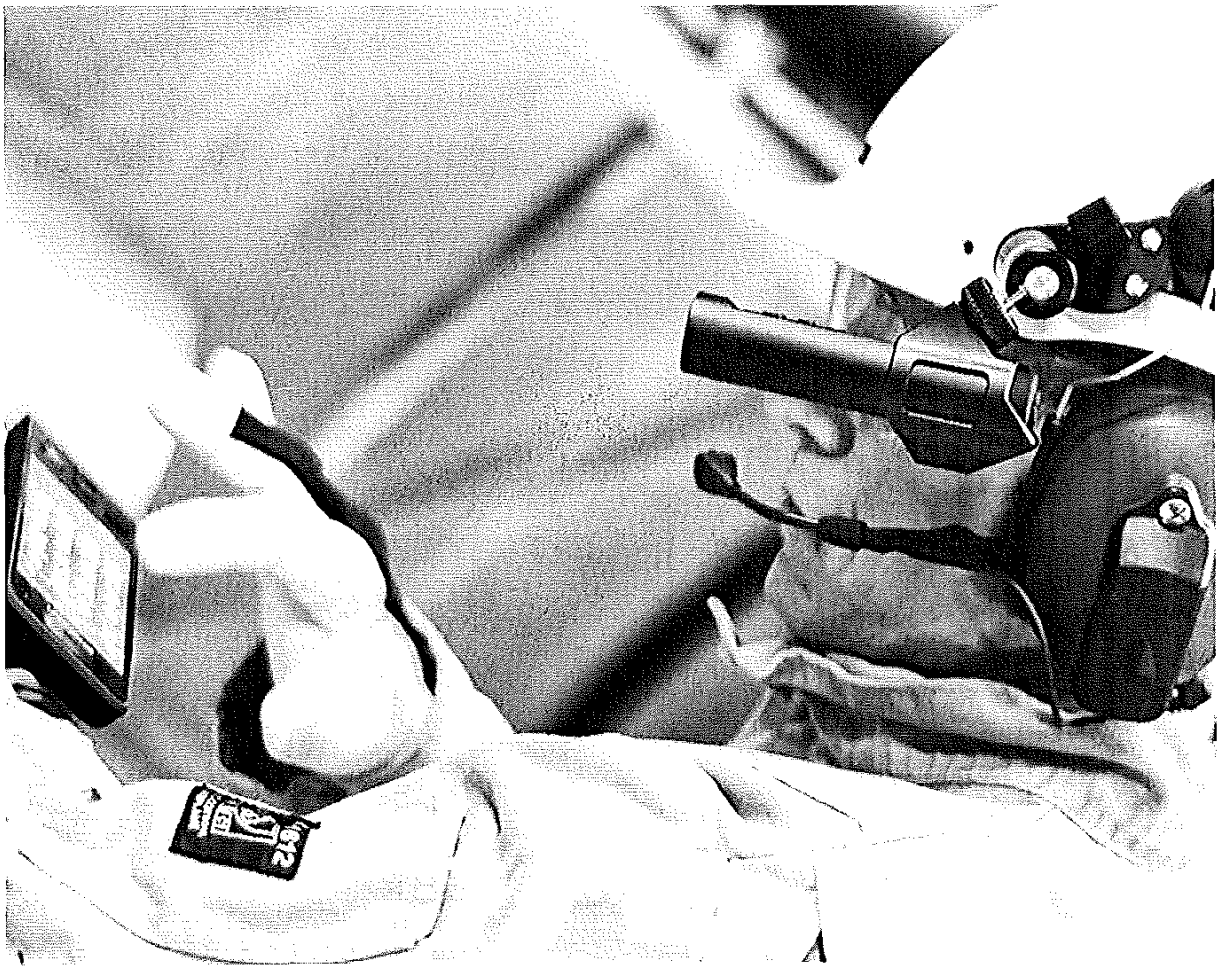
Attachment 1:-

Pixavi ImpactX and OrbitX in a miming scenario: could be adapted to providing point of care support.



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