PROPOSED MOBILE SURGICAL SERVICE.

A VISION FOR RURAL DAY SURGERY IN AUSTRALIA

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The New Zealand Mobile Surgical Service Bus

INTRODUCTION

This proposal describes the vision for the introduction in Western Australia of a mobile operating bus, similar to the mobile surgical clinic in New Zealand which is the model for this project. Unlike New Zealand, where no community is further than 50 km from a hospital, Northern Australia has vast distances between hospitals equipped with operating theatres capable of performing day surgery which is the norm for urban hospitals. Almost 50% of surgery in Australia is classified as day surgery and in the USA almost 70% of all surgery is performed as day procedures. Surgical waiting lists remain relatively long in country towns in Northern Western Australia, despite visiting surgeons making regular visits funded by MSOAP.

In the Kimberley, and in the Pilbara only a limited number of regional hospitals have operating suites capable of doing more than very minor surgery---for example, Broome, Derby and Kununurra Regional Hospitals in the Kimberley. This situation requires patients and their families to be disrupted to travel to these hospitals for surgery or, on occasion, to Perth for more specialised surgery from centres with local hospitals with adequate bed numbers but without surgical facilities.

The proposed Mobile Surgical Service provides a mobile operating suite staffed by up to eight different proceduralists and accompanying anaesthetists and nurses to visit centres with non-operating theatre equipped hospitals to enable day procedures or short stay (overnight

procedures) in the local community. Examples of this include towns such as Wyndham, Halls Creek, and Fitzroy Crossing in the Kimberley, where a mobile operating theatre could be sited next to the local hospital and post-operative patient recuperation be carried on in the hospital, once the patient has recovered from the anaesthetic in the recovery room on the bus.

The mobile operating bus would be managed as a not for profit organisation with initial fund raising for the bus being arranged perhaps by the Telethon Foundation. Discussion with the Telethon office regarding the concept has been enthusiastically received subject to a more detailed investigation and feasibility study being undertaken. This study would determine the capital and operating costs of the project, the sources of financing the capital costs and after determining the recurrent expenditure budget, the key stakeholders (Federal and State Governments, key business partners and the Telethon Trust) would be approached to provide direct and indirect funding which would bring the project and the vision to fruition.

It is envisioned funds of the order of $10,000,000 would be raised by the Telethon Foundation, Commonwealth Department of Health and Health Department of Western Australia with funding sought principally from mining companies in the Kimberley and Pilbara regions, with significant savings in disruption and time away to families and companies in mining towns. The Commonwealth Department of Health would provide funding on a fee for service

basis for Medicare patients to the surgeons and anaesthetists, whilst the Health Department of Western Australia would provide the operating bus permanent nursing and other staff salaries, flight and accommodation costs for medical staff, and ongoing equipment and disposable requirements. Savings would arise from the reduced patient assisted transport scheme (PATS) allowance and the decreased costs of day surgery locally compared with costs in a tertiary teaching hospital in Perth.

POTENTIAL SCHEDULING OF THE MOBILE OPERATING BUS.

The Mobile Surgical Service has the capacity to fulfill several roles---

1. Mobile day surgery procedures to selected district hospitals in the Kimberley and Pilbara---this would be the primary role of the facility for 200 plus days per year, weather permitting.

2. Adjunctive mobile operating theatre to reduce waitlists in regional hospitals--eg. A paediatric surgeon could work out of the bus attached to Kununurra Hospital to do the more than 100 tribal circumcisions on the hospital wait list before the procedures are done in the bush. "Blitz " operating lists to reduce grommet wait lists in the region is another example.

3. Extension of the program to the Northern Territory or Gascoyne region. If the model is successful, then extension to other centres/ further buses is possible in Central and Northern Australia.

Scheduling to optimise the operating bus and staff fully will require investigation of the need for the 8 proposed surgeons and proceduralists and patient waiting lists. In order for efficient use during the year, it is proposed that 2 proceduralists at a time will accompany the bus, one consulting while the other operates and vice-versa. This would allow for example an ENT Surgeon and an Ophthalmologist to spend 2 days in Wyndham, 2 in Halls Creek with the last weekday in Fitzroy Crossing, before the Surgeons and Anaesthetist return to Broome and Perth. Alternatively, the team could proceed for a second week to the Pilbara, ending in Port Hedland with the next team flying in there. (It must be emphasised this program is not meant to replace the current visiting services provided to the Kimberley and Pilbara, but rather to enhance and supplement it.)

Possible visiting specialist surgeons and proceduralists might include, depending on demand

(1) General surgeon---hernia procedures, laparoscopic procedures etc.

(2) Paediatric surgeon--- undescended testicles, hernias, etc.

(3) Urologist---cystoscopy, prostate biopsies, vasectomies etc.

(4) Orthopaedic surgeon---arthroscopic surgery, meniscectomy, carpal tunnel etc

(5) Gynaecologist---colposcopy, laparoscopic surgery etc.

(6) Plastic Surgeon---Burns revisions, skin tumours, congenital deformity surgery etc.

(7) Ophthalmology---cataract surgery etc.

(8) Otolaryngology, Head and Neck surgeon--- grommet, myringoplasty, microlaryngoscopy etc.

In addition, there will be the capacity for proceduralists such as Gastroenterologists, Respiratory physicians and Dermatologists to be included , if there is a need demonstrated. An anaesthetist experienced in all forms of paediatric and adult day surgery would be an essential member of the team.

PERMANENT STAFF.

The Operating bus would require the following permanent staff at the very least---

(1) Co-ordinator/Registered Nurse--with theatre skills.

(2) Operating nurse/ scout nurse. May need to do supervisory recovery nurse duties with local nursing staff.

(3) Anaesthetic technician--preferably with a nursing background.

(4) Orderly, bus driver.

In addition to the operating bus, a seven seater 4WD with a large caravan for permanent staff accommodation versus local hotel accommodation where the visiting staff would stay.

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Interior views of mobile operating bus

ADVANTAGES AND SAVINGS WITH THE MOBILE OPERATING BUS.

1. Supply of surgical services to local community--this can not be under-estimated as the disruption to families from the need for patients and carers to travel to regional or urban hospitals is significant and expensive in terms of airfares, accommodation costs and additional time off work. In particular, Indigenous families are very accepting of surgery in the local community, whilst there is a high rate of non-attendance at regional hospital operating sessions.

2. All sections of the community benefit--from privately insured and Medicare patients, adults and children, Aboriginal and non-Aboriginal patients ---all in the community fit for day procedures will be eligible. There is the possibility of the patients who require additional overnight care for pain relief or for anaesthetic reasons such as prolonged emesis to be treated in the adjoining hospital .

3. Expansion of operating indications. With modern anaesthetic and surgical techniques the range of surgical and diagnostic procedures suitable for day surgery expands annually---It is not out of the realm of possibility that two thirds of surgical procedures could be done as day cases in the next 5 years in Australia.

PRELIMINARY COSTINGS.

This is not a business plan---to effectively cost the operations of a Mobile Surgical Service would require a health economist or project officer with full access to the necessary data from State and Commonwealth governments. However, it is possible to give estimates for some costs to be included.

(1) EQUIPMENT.

Operating bus--with included anaesthetic and surgical equipment---$5,000,000.

4WD and caravan---$200,000.

Disposables--drapes, prostheses, anaesthetic gases etc---to be determined.

(2) PERMANENT STAFF.

Co-ordinator---$100,000 including on costs but excluding accommodation etc.

RNs---$80,000 each including on costs.

Orderly/Driver--$60,000 including on costs.

(3) RECURRING COSTS.

Maintenance, fuel for bus, Vehicles.Depreciation.?Covered by interest on capital fund.

Replacement of Surgical, anaesthetic equipment.

Flights, accommodation for visiting doctors. Salary/ fee for service costs.

Other costs--?shelter for bus in cyclones etc.

SUMMARY.

The vision for the Mobile Surgical Service is that of an innovative surgical service to remote regions of Northern and Central Australia, achievable, practical and cost-effective. The funding for the bus and its operation would be shared by the Telethon Foundation, Health Department of Western Australia and the Commonwealth Department of Health. The benefits of this program would be to the whole rural community in the selected regions.

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