MINIMUM ACUTE CARE REQUIREMENTS OF RURAL TOWNS

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The Importance of Acute Care for Rural Communities

Communities in rural Australia have poorer health, and poorer access to health resources, than those in urban Australia. In contrast, much of Australia's wealth is based on primary production and extractive industries, which are largely based solely in rural and remote areas.

The recently released Australian Institute of Health and Welfare report[1] provides a comprehensive review of data that clearly demonstrates this health imbalance. Not surprisingly, injury is a major contributor to premature mortality in rural Australia, primary production being acknowledged as the highest mortality occupation in Victoria, and second highest in Australia.

Health in Rural and Remote Australia

The Australian Institute of Health and Welfare report found:

- Death rates for all causes of injury in males living in 'other remote areas' double those of males in 'Capital Cities'
- Death rates from injury 50% higher for males in 'other rural areas' when compared with 'Capital Cities'
- Death rates from motor vehicle accidents showing an even more pronounced pattern of increase with increasing remoteness, both sexes dying in motor vehicle accidents in 'other rural areas' at more than double the rate of those living in 'Capital Cities'.
- Male hospitalisation rates due to burns in the 'remote zone' were seven times that of males living in 'Capital Cities'.
- Hospitalisation rates for falls in people aged 65 years or more show higher rates in rural and remote zones.

Not surprisingly, the report also found factors that decreased with rurality and remoteness were:

- 50% reduction in public hospital expenditure per acute bed.
- 50% reduction in Vocationally Registered GP's per head of population.
- Reduction in the number of GP consultations occurred locally, and also in general, by 67% rural areas, and 90% in remote areas.

The increase in morbidity and mortality with remoteness clearly reflects a decreasing density of medical resources both in terms of manpower and facilities. This rural health disadvantage was also found to be independent of the effect of poorer indigenous health.

Rural health practitioners are expected to cope with this significant difference in poorer health, and particularly major injury in an environment of increasingly limited resources, and subsequently reduced facilities.

Retention of rural general practitioners

Several studies[2] [3] [4] have shown that paramount amongst the reason for doctors leaving rural practice were the lack of ability to solve professional problems, most notably overwork, forced deskilling (through closure of hospital facilities), and professional isolation.

A recent survey[5] of Victorian rural general practitioners showed that rural general practitioners in towns without hospitals had different characteristics and working conditions from those with hospital access and back up. Paradoxically general practitioners without hospitals were more likely to have emergencies brought directly to their surgeries and had more equipment in their surgeries, yet they had significantly lower confidence in emergency

skills. Somers and colleagues[6] assessed the availability of general practitioner emergency skills and equipment in two rural divisions of general practice in Victoria, one with, the other without local hospitals. The division without hospitals scored significantly lower in skill levels, but there had also been a significant reduction in skill levels in both divisions over time.

If rural practitioners are to counter this rural health disadvantage, there is a need to promote retention of skilled rural general practitioners, and their skills. This will only happen if the health facility addresses the needs of the medical practitioner, as well as the needs of the Community.

Community Needs

When surveyed[7] rural communities' priority for medical services are:

1. Resident GP
2. A local hospital with acute beds.

They welcome additional health services – district nurses, community nurses, community health centres, public health campaigns aimed at a healthy lifestyle – but these are "add ons" and much lower in their priorities.[8]

Where the community is too small to sustain a medical practice, they want a resident health worker such as a district or community nurse.

They much prefer a visiting general practitioner rather than having free transport to attend a clinic in a neighbouring town.

These priorities are not misplaced in this day and age. The emphasis should not be on aged care and community health rather than acute care, for all the reasons detailed previously. Additionally, communities feel insecure without ready-to-hand competent emergency care.[9]

For small communities the availability of an acute hospital with versatile GPs is important for the economic well-being of the town: It prevents much out-of-town shopping; and aids the recruitment of essential quality professionals into the town such as lawyers, school teachers.

Summary

Communities in Rural Australia have poorer health and much higher mortality from acute injury. At the same time there is an escalating loss of rural health practitioners, coupled with increasing downgrading of acute hospital facilities.

Essential framework of an Acute Rural Hospital (infrastructure)

The following essential framework of an acute rural hospital is an attempt to provide a minimum standard that rural communities should expect. This will provide equity of access to health services with their urban counterparts.

1. **Modern well-designed buildings** suitable for the local environment are preferable. However, older buildings can be adapted and can be made effective with good work-flow practices.

2. **Labour Ward** should be a large, friendly, informal area but with modern equipment. In small hospitals with less than 100 deliveries per year, a labour ward can have flexible use for oncology, chemotherapy, recovery and waiting area for day theatre cases.

3. **Operating Theatre suite.** Theatres which are being renovated or rebuilt should be of a generous size. However, if the operating theatre and ancillary areas are of a small scale, good infection control can be maintained with proper work practices.[10]

   The theatre has a useful role in small hospitals as a resuscitation area for major trauma or medical emergencies where equipment such as Boyle's machine and other resuscitation equipment is ready to hand. This allows the A&E Department to avoid duplicating expensive equipment.

4. **X-ray Department** with radiology services available 24 hours/day. Both a stationary unit and portable unit (optional U/S service). This means that GPs need to be (or trained to be) skilled radiographers-radiologists.

5. **Well-trained Nursing Staff** with a hospital policy for FUNDING regular update courses and re-skilling at larger hospitals. While there needs to be a principal theatre sister (who also works on the ward) a further 2-3 registered nurses should be available as emergency theatre sisters. Their skills need to include assisting at Caesarian sections and appendectomies and acting as anaesthetist's assistant.

6. **A tradition of acute care** is important. This means that sterile sets should be available at all times – not only suture trays etc in OPD but General surgical sets and caesarian sets, epidural sets.

7. **Pathology & Biochemistry** – not every small hospital can sustain a local pathology service. A daily courier service to a district laboratory is sufficient with emergency transport of specimens via ambulance, hospital car or patient's relative.

8. **Stored blood** should be available at 1 hour's notice. If the town is isolated eg. Corryong or Ouyen, O- blood should be kept in blood refrigeration and regularly replaced or exchanged. A donor list for rapid access to ultra fresh blood is a valuable resource.

9. **GP Anaesthetist** is also a valuable resource. Access to a neighbouring GP anaesthetist may be sufficient, but does not replace the unique skills that an anaesthetic training provides in an emergency.

10. **Ambulance Service** – Ideally each small town with an acute hospital should have a resident ambulance service. In Victoria many isolated towns with an acute hospital do not have this. The idea of an ambulance vehicle with volunteer drivers/officers needs reviving, but this should not be seen as a replacement for trained ambulance officers. Even with resident ambulance officers, trained volunteers would be useful in emergencies when one of the two permanent officers is off duty or away. Ambulance stations should be located within the hospital grounds to enable the officers to be useful in the hospital when times are quiet for them. We recommend that, as a major policy change, ambulance officers be a component of hospital staffing. This would enhance hospital/ambulance coordination, provide upskilling of the officers and provide cost savings.

11. **Sterilisers** – autoclaves: each acute hospital needs its own in situ autoclaving service. If the autoclaves are obsolete they should be replaced with Government funding as a matter of course. External sterilising at a far away major hospital is not convenient nor flexible enough for the small acute hospital. Flex Endoscopy sterilising – this should conform to the Guidelines of the Gastroenterological Society of Australia & Gastroenterological Nurses Society of Australia "Infection and Endoscopy Guidelines"[11]. Glutaraldehyde sterilisation with proper fume cupboards conforming to Occupational Health & Safety guidelines is perfectly adequate and more expensive alternatives are not required[12].

12. **Hospitals with VMOS** should provide as a matter of course accommodation for locum doctors, such as a serviced flat preferably close to the hospital so that the single locum is able to have meals provided by the hospital. Locums are expensive for GPs and therefore the hospital should be prepared to provide this accommodation out of its budget.

13. **Accreditation**. All hospitals not accredited under A.C.H.S or ISO 9000 should be working towards this goal, a useful process for developing proper policies and procedures, and a regular outside audit of the acute hospital's activities.

14. **Hospitals should be encouraged** to conduct a regular 6 or 12 months audit of all theatre, anaesthetic and obstetric cases with neighbouring GPs and staff and the shared Medical Director invited to attend.

THE ABOVE MINIMUM STANDARDS MUST APPLY TO THE ACUTE HOSPITAL FACILITIES FOR MULTI-PURPOSE SERVICES, HEALTH STREAMS, AND BUSH NURSING HOSPITALS.

References

[1] Strong K, et. al., "Health in rural & remote Australia", Australian Institute of Health & Welfare (Canberra) 1999
[2] Kamien M., "Staying in or leaving rural practice - 1996 outcomes of doctors' 1986 intentions", MJA 1998;169:318-321
[3] Alexander C., "Why doctors would stay in rural practice in the New England Health Area of New South Wales", *Aust J. Rural Health* 1998; 6: 136-139
[4] Hays et al., "Why doctors leave rural practice", *Aust J. Rural Health*. 1997; S: 198-203
[5] Campbell D, et. al., "Survey of Victorian rural general practitioners in towns without a hospital", Monash University, Moe Campus 1996.
[6] Somers G., et. al., "General practitioner preparedness to respond to a medical disaster (Parts I & II)", *Aust Fam Physician* 1999; 29 (Suppl I): S3-S14
[7] Humphreys, J S et.al., "Health care preferences in a country town", *The Medical Journal of Australia* (Vol 154, June 3, 1991) 733.
[8] Humphreys J S et.al., "Evaluating the importance of information sources for preventive health care in rural Australia", *The Australian Journal of Public Health* (Vol 17 No.2 June 1993) 149.
[9] Sustainable Practice Models, Canberra: Commonwealth Department of Health and Family Services, May 1998
[10] Reed C, Personal communication, April 1998
[11] Gastroenterological Society of Australia & Gastroenterological Nurses Society of Australia. Infection and Endoscopy Guidelines.
[12] Cowen A. Personal communication Dec 1997