


 THEME: Shared antenatal care

Shared antenatal care for Indigenous patients in a rural and remote community

BACKGROUND An increase in perinatal mortality prompted a review of services to pregnant women in remote northern and western Queensland, Australia. In order to address the needs of the Indigenous population in particular, a range of service changes was implemented to improve outcomes.

OBJECTIVE This article aims to highlight the changes made in the delivery of local and regional antenatal services.

DISCUSSION Mt Isa Hospital is the supplier of obstetric services for the north and west of Queensland. Poor antenatal access rates and other service issues for Indigenous patients were identified as contributing to these poor outcomes. Consultation with Indigenous patients and health service providers prompted changes in modes of delivery of services that in the short term seem to have improved results. The models for delivery of services include primary health care clinics in remote communities, Aboriginal community controlled health services, and flying obstetrician clinics.

This is not a statistical analysis of Aboriginal antenatal care, but rather a description of simple changes made in the delivery of local and regional antenatal services. These changes facilitated an improvement in attendance and access to maternal health care. Consultation with health providers and Aboriginal communities has enabled a restructuring of the services to address the particular cultural and family needs of a high health risk group.

Methods

Setting

Mt Isa Hospital supplies obstetric services for a large region of remote northern and western Queensland. This district includes a range of very remote and Indigenous communities from

Birdsville in the south to Mornington Island and Normanton in the north, Camooweal and Lake Nash in the west, and Hughenden in the east. Private and public salaried general practitioners, and a specialist obstetrician supply obstetric services for the district, supported by midwives who deliver the majority of the public normal confinements. In this area of approximately 600 000 sq km (roughly twice the size of Italy), the population of approximately 35 000 is characterised by a number of features including its Indigenous communities which constitute 8500–10 000 people, or 22% of the district and 8% of Queensland's Indigenous population. The majority of people (21 000) live in Mt Isa, of whom 2500 are Indigenous. The population age profile tends to be younger, transient and

Pieter Nel,
Dennis Pashen



Pieter Nel, MBChB, FRACGP, is Acting Director, Emergency Department, and Acting Coordinator, Palliative Care Service, Mount Isa Health Service District, Queensland.



Dennis Pashen, MBBS, MPHTM, FRACGP, FACRRM, is Associate Professor and Director, Mt Isa Centre for Rural and Remote Health and James Cook University, Queensland.



Figure 1. The Yapatjarra Medical Centre

mobile due to the nature of the mining and Indigenous communities.

Health risks in the Indigenous population are high due mainly to:

- high levels of type 2 noninsulin dependent diabetes mellitus
- renal disease
- cardiovascular and rheumatic heart disease
- alcohol use
- tobacco and other drug use, and
- reduced access to appropriate services.

The perinatal mortality rate has been described as between two¹ and three^{2,3} times that of the non-Indigenous rate. Although some states show improvements in this rate, north and west Queensland have not shown such a reduction. Tied together with the results of higher levels of prematurity and low birth weights in Indigenous babies, the resulting impact of poorer antenatal care comes into significance.^{3-6,10} In addition, Aboriginal and Torres Strait Islander women contribute 30% of Australia's direct maternal mortality from only 3% of the confinements.³ Increasingly poor antenatal care, social deprivation and maternal health status have been identified as the key drivers of these appalling statistics.^{4,5}

Mount Isa Hospital's maternity suite is the sole approved site for obstetric confinements in the region with approximately 600 deliveries annually. Public obstetric and gynaecological coverage is provided by a Director of Obstetrics, Senior Medical Officer on-call, Junior House Officer, and

occasionally, by private GPs and the Director of the Mt Isa Centre for Rural and Remote Health.

In the six months from January to June 2002, there were eight perinatal deaths. All were intrauterine deaths between the gestational ages of 24–35 weeks. A retrospective investigation was conducted within the health service to identify causes for the sudden onset of a high mortality rate. The following possible causes were initially identified:

- inappropriate or inconsistent antenatal visits/care
- variations between doctors, both in outreach clinics and at Mt Isa Hospital
- poor patient attendance at antenatal care and adherence to advice
- culturally inappropriate waiting and examination room
- high staff turnover and intermittent absence of consultant obstetricians.

All factors highlighted the need for improved continuity of antenatal care. After consultation with both Indigenous and non-Indigenous patients, the hospital decided to implement some major service changes. First, it was decided to provide Indigenous patients in Mount Isa with a prenatal clinic at the separate Indigenous medical centre at Mount Isa. The Yapatjarra Medical Centre (Figure 1) is the local Aboriginal community controlled health service and is managed by a community board and staffed by Indigenous people. Second, a share-care policy (Figure 2) was drafted and implemented, then distributed to all doctors in the region. It emphasised to all regional medical practitioners the need to adhere to the share-care policy and outlined their responsibility in the case of adverse outcomes. Doctors wishing to provide antenatal care needed to apply to a hospital privileging committee.

Consultations with local Indigenous representatives were able to identify shortcomings and problems with antenatal care from an Indigenous perspective:

- culturally inappropriate environment, waiting rooms and space
- lengthy waiting times
- no continuity of care; different treating doctors at the antenatal clinic with no possibility of building a relationship or trust with one doctor, which is particularly desired by Indigenous people
- no regular transport to hospital to attend appointments

- no sharing of notes or blood test results between the Yapatjarra Medical Centre and the hospital facility. Accordingly when patients presented in labour at hospital after hours, previous medical history could not be accessed.

Intervention

As a result of these consultations a number of solutions were introduced. It was recognised that to build up trust in the Indigenous community, a medical officer would be required to spend a significant time in Indigenous communities and to set up an antenatal clinic at the Yapatjarra Medical Centre.

Antenatal outreach visits

The medical officer travels via air charter to conduct regular antenatal clinics in remote areas that are often isolated during the wet season. Portable ultrasound and standard blood tests are performed. At 36 weeks gestation, these remote patients, together with their clinical records, are transferred to the Mount Isa Hospital for confinement. This mirrors the clinics operated for some time by the Far North Regional Obstetric and Gynaecological Service (FROGS) initiated in Cairns by Professor Michael Humphrey.

Yapatjarra shared care facility

A fortnightly clinic was introduced. This ran for 2–3 hours under an appointment system. Patients were seen in familiar surroundings, initially by Indigenous staff then by their own doctor in a familiar consulting room. Aboriginal health workers made personal visits to Indigenous patients in the community to ensure they attended consultations. Yapatjarra Medical Centre provided a bus to collect and return patients for appointments. Previously, patients without private transport had to rely on an over taxed Home and Community Care bus with scheduled drop off and collection times, sometimes resulting in lengthy waiting times. The new environment was more culturally appropriate.

The service recognised the well documented importance of large extended family links in Indigenous communities. Patients are able to bring their children to appointments and are assured of a child friendly environment. Family members are welcome to 'sit in' at antenatal consultations to support the patient. Feedback indicated a more positive environment with the extended family

(including children, partner, 'aunties') being included in the ongoing care and, ultimately, the delivery of the baby. Patients and family alike are able to see the fetus on the portable ultrasound.

Implementation of a duplicate record system

Health workers began collecting hospital notes for those patients with appointments at the Yapatjarra clinic. The medical officer then recorded antenatal visits in both the Yapatjarra chart and the hospital chart. Copies of pathology results taken at Yapatjarra were also available in hospital records.

DEFINITION

Shared care patients are defined as patients who elect to have antenatal care with the private medical officer of their choice but elect to deliver as a public patient under the care of the public system.

RATIONALE

Poor continuity of care increases the risk of poor maternal and fetal outcomes. Mount Isa Antenatal Clinic agrees to participate in shared care under the following criteria:

CRITERIA

1. Patients will visit the Mt Isa Hospital antenatal clinic at 12–14 weeks gestation where suitability for shared care will be determined by the obstetrician or obstetric delegate.
2. If accepted for share care the patient will be required to attend the Mt Isa Antenatal Clinic at: 28 weeks gestation, 32 weeks gestation, 36 weeks gestation and 40 weeks gestation or at the obstetrician or obstetric delegate's discretion.
3. It is requested that patients from outside Mt Isa be referred to their local hospital or health clinic as early as possible in their pregnancy in order for the midwife to complete the required antenatal documentation. Patients are required to book in at the Mt Isa Hospital admissions office at 20 weeks gestation.
4. It is recommended that all shared care patients have a morphology scan attended at 18–20 weeks gestation arranged by their elected shared care medical officer.
5. The shared care medical officer, community midwife and local hospital/health clinic will receive written feedback regarding the patient's care after each Mt Isa Hospital antenatal visit.
6. It is expected that the medical officer/midwife will provide the Mt Isa maternity ward with the results of any pathology and scan tests before the patient's planned appointment at the antenatal clinic. The pathology requirements are identified on the attached sheet.
7. Patients who elect to partake in a shared care arrangement should be made aware of the above criteria by the attending medical officer to facilitate an informed decision.

Figure 2. Mount Isa District Health Service Shared Antenatal Care Policy

Ultrasonographic assessment

Previously Indigenous patients were required to attend the private X-ray facility and pay a private fee for ultrasounds. As a result, Indigenous patients accessed ultrasounds irregularly, and often patients presented quite late in their pregnancy without a 20 week ultrasound or morphology/gestation reports. An 18 week ultrasound performed through the ultrasound facility at the hospital was incorporated in the share-care policy. The report was filed both in the hospital and Yapatjarra notes.

Patient register

A register was initiated which recorded the details of all patients seen, their expected date of delivery, risk factors, and previous and current complications. Patients could be tracked if they missed appointments and transport arrangements were put in place for those patients highlighted as not attending regularly.

Results

Twelve months after the implementation of this policy and the outreach clinics, we can identify improvements in:

- the subsequent six months July to December 2002, there were only two patients who presented to the Mount Isa Hospital without any antenatal care as compared to 10 cases in the previous six months
- the perinatal mortality rate for the six months, June to December 2002 was two, compared to eight in the previous six months
- attendance – at the initial introduction of the clinic, only 5 out of 8 patients booked at the fortnightly clinic actually presented. Currently attendances are 9 out of 10 people booked for each clinic, with quite often, 12 patients rather than the maximum of 10 attending. As a result of the marked increase in demand, clinic hours have increased from two to three hours, as well as being rescheduled weekly. Blood tests and ultrasounds are being performed regularly. Patients who would not normally share in all the health care advantages of people located in a metropolitan area are beginning to benefit after the adaptation of policies and practice accordingly.

Discussion

An editorial in the *Medical Journal of Australia*⁷ describes similar strategies to those applied in north and west Queensland. They suggested ‘to ameliorate present deficiencies’. Apart from increasing the numbers of specialists in obstetrics and gynaecology in remote areas, ‘expanding outreach services operating from base hospitals’ and ‘provision of culturally acceptable antenatal care’ were identified as significant strategies to improve outcomes.⁷ The burden of poor nutrition, increased incidence of tobacco and alcohol use, and poor antenatal attendance have all been shown to contribute to lower birth weight and higher perinatal mortality rates in Indigenous populations.⁸ A primary health care approach utilising a team including Aboriginal health workers, obstetrically trained practitioners, appropriate antenatal screening, shared records, and a culturally appropriate environment and service that is sensitive to the needs of Indigenous patients has been shown to be effective in other Aboriginal communities⁹ in reducing the risks to Indigenous babies and their mothers.

Conclusion

Changing the settings within which Aboriginal patients access their health care can make a difference to attendance and health outcomes in antenatal care. Culturally safe environments, Aboriginal staff, and ‘ownership’ contribute to improved outcomes. Dealing with patients within the context of Aboriginal community controlled health services may reduce social and cultural factors that influence adverse outcomes.

SUMMARY OF IMPORTANT POINTS


- Indigenous antenatal patients are at 2–3 times the risk of non-Indigenous patients for perinatal mortality.
- Indigenous babies are on average approximately 400 gm smaller than their non-Indigenous counterparts.
- Culturally appropriate antenatal services adopting a primary health care approach, such as those delivered through Aboriginal community controlled health services and outreach maternal health clinics, can improve access to health care and therefore improve outcomes for mothers and babies.

Acknowledgments

The authors would like to thank and acknowledge the participation and cooperation of the staff of Yapatjarra Medical Service, Mr Sean Petrie and staff of the Yacca Library, Mt Isa Hospital maternity unit staff, Dr Paul Tofilau and Dr Chris King, (staff consultants O&G at the MIBH) for their advice and support, and health service providers and communities of Mornington Island, Doomadgee and Normanton.

Conflict of interest: none declared.

References

1. Alessandri L M, Chambers H, Blair E, Read A. Perinatal and postnatal mortality among Indigenous and nonindigenous infants born in Western Australia, 1980–1998. *Med J Aust* 2001; 175:185–189.
2. Panaretto K S, Muller R, Patole S, Watson D, Whitehall J S. Is being Aboriginal or Torres Strait Islander a risk factor a poor neonatal outcome in a tertiary referral unit in north Queensland. *J Paediatr Child Health* 2002; 38:16–22.
3. Couzos S, Murray R. Aboriginal primary care: An evidence based approach. Oxford University Press, 1999.
4. Humphrey M D, Holzheimer D J. Differing influences on Aboriginal and non-Aboriginal neonatal phenotypes: a prospective study. *Med J Aust* 2001; 174:503–506.
5. Humphrey M D. Low Aboriginal birth weight: Prematurity or intrauterine growth restriction? *Aust N Z Obstet Gynaecol* 1996; 36:2:126–128.
6. Tudehope D, Flenady V. Clinical classification systems for evaluating Indigenous perinatal and infant deaths. Editorial. *Med J Aust* 2001; 175:181.
7. O'Connor M C, Bush A. Pregnancy outcomes of Australian Aboriginals and Torres Strait Islanders: Partnership in health care will help overcome cultural barriers. *Med J Aust* 1996; 164:516–517.
8. Smith R M, Smith P A, McKinnon M, Gracey M. Birth weights and growth of infants in five Aboriginal communities. *Aust N Z Public Health* 2000; 24:124–135.
9. Powell J, Dugdale A E. Obstetric outcomes in an Aboriginal community: A comparison with the surrounding rural area. *Aust J Rural Health* 1999; 7:13–17.
10. Mackerras D. Evaluation of the Strong Women, Strong Babies, Strong Culture Program: Results for the period 1990–1996 in the three pilot communities. report. Menzies School of Health Research, June 1998. 

REPRINT REQUESTS

Dr Pieter Nel
PO Box 27
Mt Isa, Qld 4825