Health & Health Care In An Isolated Northern Territory Community

Dr Peter Brown
Numbulwar, Northern Territory

3rd National Rural Health Conference
Mt Beauty, 3-5 February 1995
Proceedings
The following opinions and observations are wholly based on my experiences over the past four years practising at Numbulwar in East Arnhem Land.

Numbulwar is an Aboriginal community of approximately 900 people, situated on the western side of the Gulf of Carpentaria. Founded 40 years ago by Anglican missionaries, the population leads a largely hunter-gatherer lifestyle.

The people belong to the Numburindi tribe, consisting of 14 separate clan groups. In addition, there are about 50 non-Aboriginals, including health and education staff, tradesmen, shop staff and their respective families. Numbulwar is administered by a local Community Council.

Access to Numbulwar is via two four-wheel-drive tracks which are closed in the wet season for up to five months. A dirt airstrip permits light aircraft travel, once again closing quite regularly during the wet season. A barge visits once per fortnight, supplying food and construction equipment.

In the light of the increasing awareness and concern over the plight of our indigenous population, this paper is mainly devoted to a few of my experiences, both encouraging and depressing, in attempting to establish the actual health problems for myself and instigating reforms, where necessary, to the treatment regimes and prevention programmes.

Personal Background

I commenced full-time private practice in Numbulwar on 1 April, 1992, following careers in the R.A.A.F., private practice in Shepparton, Victoria, service in the Antarctic, and as District Medical Officer on Groote Eylandt.

I soon realised that if any inroads were to be made to improve Aboriginal health, the services of a travelling DMO were sadly inadequate. Little if any follow-up was possible, and investigations into community dynamics and basic causation of disease processes were virtually non-existent.

It was made clear to me that the Northern Territory Department of Health would not provide funding for a doctor to live in Numbulwar. I therefore resigned from their employment and commenced the first and only completely private general practice in an Aboriginal community in Arnhem Land.
I have the use of the health centre facilities, under a contractual obligation to pay for any use of sundries and medications which may be deemed to be excessive. I was also instructed to inform the local community that, upon my eventual departure from Numbulwar, the Department would not, under any circumstances, replace me with another resident G.P. A Health Department official stated “You could put ten doctors into Numbulwar and there would be just as many sick people”.

I now enjoy an extremely productive working and social relationship with the Aboriginal Health Workers and sister-in-charge, though we still experience a lot of teething troubles with new staff who, on the whole, have difficulties relating to different cultural norms and expectations, and limits on their level of responsibility with a resident doctor present in the community.

**Personal Difficulties Relating To Isolation**

Numbulwar is the most remote and isolated community in Arnhem Land. This remoteness, which has allowed some exciting science to be performed, also accounts for the stress which results from personal and professional isolation.

Basic survival involves being fed and having a roof over one’s head. Foodstuffs may be ordered on the barge from Darwin, a fortnight in advance, incurring high transport costs, or purchased from the privately run store at exorbitant prices. Bulk vegetables are supplied to the store and repackaged into smaller quantities eg. $5 for four onions, $6 for six bananas, $5 per lettuce and $4 for a quarter of a cabbage! The list goes on. Recently, mangoes the size of duck eggs, picked from local trees, were being sold for $2 - $3 each!

Cost and the paucity of regular flights to major centres preclude travel to organised educational programmes. Travel to Darwin costs $720 return plus accommodation. Surprisingly, I have never had a pharmaceutical rep visit! Our nurses are flown out to in-service training occasionally on a very irregular basis.

**Some Ups**

Before coming to Numbulwar, I had imagined that opportunities for performing good basic investigative research greatly affecting the well-being of a whole community were few and far between in Australia. Alarmed at the morbidity and mortality due to diarrhoeal disease and the substantial delay in obtaining meaningful pathology reports, I borrowed a microscope and set out on a ‘seat of the pants’ self-taught parasitology course. The immediate beneficial results and overwhelming enthusiasm of our Aboriginal Health Workers have resulted in a significant decline in hospital admissions and across-the-board change in attitudes regarding the ‘shameful’ presentation of faecal specimens.

Another great ‘up’ was my ‘adoption’.
To be regarded as a member of the local community, one must ‘fit’ into the social organisation. Everyone then knows how to behave toward you, including avoidance behaviour. I now have brothers, sisters, grandchildren, mothers-in-law and even ‘poison cousins’. I have been hunted by a grandson, armed with blunt spear and womera. If speared, I must dance for him every night before his traditional manhood ceremony. I could tell you what happens ..... but women are not permitted to know! This ceremony is strictly ‘men’s business’.

In our spare time, we hunt and fish and supply food to the elderly and incapacitated.

Living in the community gives one an insight into cooking procedures and eating habits which has thrown light onto the sources of many salmonella and shigella outbreaks.

The list of wonderful and encouraging experiences is far too long to recite; however, my most memorable are those of the community’s Aboriginal health workers demonstrating and describing faecal parasites to visiting doctors and nurses. A visiting specialist was absolutely astounded when he witnessed an Aboriginal Health Worker sitting intently at a microscope and diagnosing strongyloides, dwarf tape worm, trichuris and giardia ... all in the one patient!

**Stories**

The major health problems we deal with on an almost daily basis are diarrhoeal disease, endo- and ecto-parasitic infestations, diabetes and its sequelae, bacterial chest and urinary tract infections, gross impetigo, STDs, rheumatic heart disease and the ongoing battle of investigation and treatment of ‘failure to thrive’ infants. These, coupled with ongoing vaccination programmes, rheumatic fever prophylaxis and routine ante-natal care, make for a very busy clinic with little time available to spend in the community on preventative programs.

**Diarrhoeal Disease**

By far the most common reason for emergency evacuation and hospitalisation, especially in infants and children, is diarrhoeal disease. At Numbulwar, we are combating the tyranny of isolation and poor access to pathology services by performing our own wet film faecal microscopy. I have taught several of our Aboriginal Health Workers to perform their own faecal microscopy and they can diagnose strongyloidesis, trichuriasis, hymenolepis nana, giardiasis and other more rare flagellates. We are still working on the concept of amoebae.

All our patients and their families are shown the offending organisms under the microscope and compliance with treatment has risen as dramatically as admission rates have fallen.
Salmonella and shigella are common presentations, again fairly easy to diagnose on microscopy and macroscopic appearance. We have discovered many cases of amoebae, but as yet they remain unidentified. The main two enteric parasites we have isolated are strongyloides stercoralis and trichuris trichiura. Neither of these is affected by the recommended mass worming treatment using pyrantel.

Over 55% of specimens presented show trichuris eggs and approximately 15% display very motile strongyloides. If, as I was advised by a prominent parasitologist, one would normally expect to pick up only 10% of strongyloides cases through the use of simple, unconcentrated microscopy, it would appear that there are more cases than patients!

Anecdote No. 1:

A lady presented her 3 year old suffering from diarrhoea - “Oh good.....something new!” After assessment, a specimen bottle was provided. She failed to return. She presented twice more over the next week with the same complaint, but refused to produce a specimen. On visit number four, again no specimen and a much lighter child. Luckily, the little girl diarrhoeaed all over my floor! We scraped up a sample with a spatula, performed a wet prep and discovered it was riddled with strongyloides. Appropriate treatment and education were instigated. Since that episode, the mother has presented every specimen we have requested. Another costly evacuation avoided.

Anecdote No. 2:

I called a Tribal Elder into my room to show him a strongyloides worm just discovered in a faecal specimen. He stared down the microscope for about five minutes and then declared to me that he was “going to the Council to tell the other Elders that it was all true! There really are hookworms and something has to be done about it!” That man has had hookworm prevention rammed down his throat for the past forty years, but only on seeing the offending organism did he believe.

**Ecto Parasites and Impetigo**

Although scabies is a very real problem, we have come to suspect that the majority of bacterial skin infections previously attributed to scabies are secondarily infected strongyloides entry sites and possibly even those of dog hookworm. The majority of these ‘infected scabies’ sores are seen on pressure areas such as knees, buttocks, elbows and hands. True infected scabies have a strikingly different distribution in axillae and interdigital spaces. If this observation proves correct, a major rethink on preventative measures is urgently indicated.
Anecdote:

A 23 year old male with a history of rheumatic fever presented with a hot, grossly swollen elbow. Being absent from the community, I was contacted by telephone. Treatment was commenced to cover a recurrence of rheumatic fever or a septic arthritis. On seeing him the next day, there had been no improvement, although I was surprised to find little pain on movement. On closer examination, the lower aspect of his arm showed evidence of cutaneous larva migrans. He had been lying on the grass, watching football at the oval and contracted strongyloides. His condition rapidly resolved with oral thiabendazole. Another evacuation to hospital prevented.

Diabetes

All of our diabetics are Type II. They suffer the disease as a result of genetic carbohydrate intolerance and dietary indiscretion. Our youngest is 23 years of age. All the sequelae of poorly controlled diabetes mellitus are sadly in abundance. It is a little difficult to encourage healthy eating habits when the private shopkeeper sells bulk sugar off pallets from the centre of the shop! More often than not, fingerprick blood glucose readings are too high for the glucometer to register. This means the BSL is >28 mmol/l.

Anecdote:

On asking an old lady how many teaspoons of sugar she put in her tea, she looked down and didn’t answer. Later I discovered that many people don’t possess spoons, they simply pour in the sugar and stir it with a stick.

Pregnancy

All our pregnant women are admitted to Gove District Hospital for confinement. Therefore, on the occasions we do have a delivery in the community, they are premature and usually ‘small for dates’ as well. Our ‘humidicrib’ is a plastic bassinette heated with soft drink bottles filled with hot water and wrapped in blankets.

Respiratory

We have our fair share of bacterial chest infections, asthma and Chronic Obstructive Airways Disease. Unfortunately, an X-ray machine has not been deemed necessary. I am coming to the conclusion that many of our asthma cases are caused by the pulmonary phase of the strongyloides life cycle. A rapid method of diagnosis is needed as such a condition would be aggravated by the use of steroids.

Anecdote:

A two year old girl presented with her first ‘classic’ asthma attack. She responded slowly to beta agonists and oral prednisolone. She presented two months later with diarrhoea. We demonstrated fulminant strongyloidiasis and treated her successfully. She has not presented since with asthma.
My personal ‘downs’ over the past four years in Arnhem Land have primarily related to dealings with agents of the Northern Territory Department of Health. I have experienced a great deal of stress and wasted time attempting to explain to new staff that their diagnostic and prescribing habits, while supposedly acceptable on most Aboriginal communities, were not applicable where there is a medical practitioner in residence.

On my initial arrival in the N.T., the then Director of Medical Services advised me “not to be obsessive in treating Aboriginal people” and “have a sense of humour”. Well, I have a great sense of humour and didn’t, at that stage, feel I was an obsessive personality. Now I have become obsessed with delivering appropriate health services based on scientific investigation and I do not regard the phenomenon of staff being placed in situations outside their training as at all funny. Remote area populations are entitled to the legislated safeguards enjoyed by other Australians.

The light at the end of my tunnel is the Federally-funded Rural Incentives Programme, with its aim to encourage doctors to go to and remain in remote communities.

Another ‘down’ for me is observing Aboriginal communities being encouraged by the Northern Territory Government to become independently funded health services without being given adequate support, training or funds. The Numbulwar Numburindi Council experienced such encouragement. The Minister for Health even informed me that I could use my prescribing powers to transfer the costs of prescription medications to the NHS rather than have to purchase them through the Northern Territory Government.

Numbulwar has been traditionally funded for a population figure of 450 people. Over the past three years, the Council has proved that we have 822 individual residents. I am advised that this figure has now been accepted by the Office of Local Government. We are still funded for 450 people and I am not aware of any moves to correct the anomaly. This was the level of funding offered to our Council to go ‘independent’.

Much has been written about how we should work in with the wishes of the local people. We do in every circumstance, considering cultural values tempered with our medical expertise. This ability to understand community interactions and their resultant behaviour and outcome is essential and only achievable by long term residence in a community. It is therefore surprising and disappointing that the Northern Territory Department of Health, East Arnhem District, only offers health staff 12 and 24 month contracts to the overall district, not to any particular community.

I can cope with the isolation to a degree, but while fighting daily to avoid medical disasters, one is also called upon to cope with the blatant and more insidious negativity from local officialdom. It has reached the stage where, to protect myself...
and the interests of the community, I am not prepared to have any discussion with East Arnhem management staff unless it is taped. What a wonderful relationship!

Conclusion

We in Numbulwar are aware that the health status of Aboriginal people is appalling. The expressions of horror from specialists ‘down south’ when told of the pathology I see on a daily basis, highlights the widespread ignorance of Aboriginal suffering. Why is it, then, that I still feel I have to continually justify my existence in Numbulwar?

The promised extra Federal funding for Aboriginal health is not getting to the ‘sharp end’.

If it is true that Aboriginal health is a priority issue, give the front line troops the tools, support and encouragement needed to do the job and eventually the ‘ups’ might outweigh the ‘downs’.