Letter from . . . Melbourne

Ash Wednesday bush fires

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The Melbourne bush fires have already disappeared from the front pages of the world's press, but here in the lucky country the effects will be felt for a whole generation. Drought, bush fires, and flash floods are part of the natural history of life in Australia. Fortunately, the medical effects of these natural disasters are few. The Ash Wednesday bush fires that swept the two southern states of Australia were different.

Australia is a big country: the land mass of the continent roughly equals that of the pre-1950s United States of America. Melbourne sits down in the bottom right hand corner. It enjoys a changeable climate, never getting very cold and occasionally getting quite hot. It was originally founded as a well designed settlement on the edge of Port Phillip Bay. Since that time it has gently sprawled over the intervening 30 to 50 kilometres into the foothills of the great dividing range. This suburban sprawl has meant that many people have chosen to live among the gum trees that attractively clothe the slopes of the hills. These trees are beautiful both to see and to smell: they extend over 30 metres into the sky and produce a beautiful aromatic vapour of eucalyptus from their rubbery leaves. This smell of eucalyptus is guaranteed to produce instant homesickness in any Australian travelling overseas.

As the wealth of the '60s and '70s began to recede there appeared in the hills communities that were notably disadvantaged. These communities were obviously battling for their very existence; as the locals say, "They're battlers." These battlers were stranded by the tide of recession and the rising price of petrol. One such community to be identified this way was Cockatoo. This is a small township of about 700 homes all consisting of single storey dwellings wedged between the gum trees, which the environmentalists refused to let them cut down. Other communities such as Upper Beaconsfield and Belgrave South fared much better. Their residents were able to commute the 20 minutes or so to the local industrial areas and for the most part maintained their modest affluence.

The whole hillside area is known as the Blue Dandenongs. The word dandenong derives from an Aboriginal word meaning meeting place. In the case of the hills it means where the ground and the sky meet; in the case of the city, where I work, it means a meeting place for Aboriginals, and the blue comes from the haze that hangs over the whole of the hillside area, caused by the meeting of the sunlight and the aromatic oils put out by the gum trees. This, then, is the scene of just one of the 100 reported fires that swept the state of Victoria on Ash Wednesday 1983.

Disaster planning is a thankless task. Half your colleagues regard you as mad for even contemplating the unthinkable. The other half simply ignore you when the subject is broached. I originally became interested in disaster planning in a very

After the fire. A typical scene in the bush of Victoria and South Australia.

minor way while working in Bristol. There, as an anaesthetic registrar, I was encouraged to go and visit the scenes of motorway crashes. It was the early fledgling days of what would eventually become a sophisticated mobile resuscitation service based on one of the local hospitals. In 1971 I moved to Australia, with a specialist ticket for anaesthesia in my pocket. At first I worked in the operating rooms, but eventually I found myself moving into intensive care, for which I had also been trained. I involved myself, within both the intensive care unit and the casualty department, in resuscitation while maintaining my practice of anaesthesia. Like most anaesthetists I read reports from overseas on disasters—Moorgate, the Old Bailey, Flixborough, and so on. Little did I think that one day I would be involved in a disaster of my own.

In Dandenong we are lucky—we have a sympathetic hospital administration that is interested in planning for disasters, and even at the state level the health commission has actively encouraged planning in committees, though, as is inevitable with any committee, progress seems slow. At a state government level there is a state disaster plan all nicely bound in a big blue shiny folder and inside there are sections that outline the responsibilities and functions of each of the emergency services in the event of a disaster. Much of my time has been spent serving on these committees advising the authorities on what were thought to be the responses required in various circumstances. Bush fires seemed to have a low priority among medical disasters, since we imagined that most of the action would be with the fire authority and possibly those who held responsibility for evacuation.

Ash Wednesday for me meant another day of committees, and it wasn't until the late afternoon that my wife phoned me to tell me that there were bush fires around our home in Berwick. The fire had started in Belgrave South at about 3 30 pm, and by the time I had been phoned and returned home it had been burning

for about three hours. It swept down across beautiful tree covered valleys, up through an area called Harkaway, on through Upper Beaconsfield, and down again, crossing the principal highway leaving the city. In just those three hours it had covered a distance of 25 kilometres. The day itself was a hot one—43°C—and winds were gusting from the north at about 50 kilometres an hour.

My own home was a scene of chaos, although one of personal safety. Many of our friends from the hills had been evacuated or barred from returning to their houses, and they, not knowing where to go, had headed for our house. There were some very anxious people: one mother had stood horrified at a police road block as a wall of flame engulfed the hill where her home was and, she assumed, her two teenage sons, who had just returned from school. She had no way of knowing, as we later found out, that a neighbour had thoughtfully pulled them from the house and driven them to safety.

After about an hour of dithering around the house my wife suggested that I went down to the local showground, which our disaster plan had nominated a forward control post in the event of such a disaster. Only too happy to be doing something positive, I went. There, various bits of the plan had clicked into place, with the principal authorities—police and fire—establishing radio controlled forward command posts; the state emergency service, a sort of modern day civil defence unit, was also in evidence. The ambulance service had decided to establish a similar facility, although at that stage there were no casualties. A senior ambulance officer and I chatted, watching the scene and marvelling at the large numbers of fire trucks and policemen who were gathering in the showground. Soon streams of evacuees began to appear, and it dawned on me that this indeed was going to be a major disaster. I put on my fluorescent tabard and special hat that denoted me as the medical coordinator at the disaster scene, and like magic a stream of first aiders, doctors, and nurses appeared from nowhere. "You are in charge," said one. "Tell us what to do." And I did, purely automatically, my thinking function numbed by the scenes around me. I was grateful for the hours spent in committee debating and planning just such a scene. Rapidly, the young farmers' club's building became a first aid station and the ambulances grouped around it ready to take the casualties as needed. The wind began to rise to 70 kilometres an hour and the dust from the drought flew everywhere. Casualties appeared needing eye washouts and Bandaid.

The radio and television networks carried news of the disaster, and hundreds of anxious relatives were phoning to find out what had happened to their particular friends and loved ones. This meant that progressively all the telephone exchanges throughout Melbourne's south and eastern suburbs were jammed by calls and the telephone service became ineffective. Fortunately, some years ago we established special disaster lines that bypassed the exchanges; they connected to the principal ambulance service headquarters, and this probably saved the day, for between 8 pm and 9 pm the northerly wind swung round to the south west. The air temperature was still 40°C, and the southwesterly came up from the Antarctic, causing gusts of wind to go in the opposite direction to that which the fire fighters had been experiencing. This meant that those at the back of the fire now found themselves in the path of a wave of flame advancing towards them at 100 kilometres an hour; the firemen call this a firestorm.

Fuelled by heat, low humidity, dry bushland, and the eucalyptus oils the effect was an inferno. The experts tell us that a hectare of Australian bush forest produces the energy equivalent of one Hiroshima atom bomb during the period of its burn. Certainly, we know from what we saw later that the heat was enough to melt windscreen glass and aluminium engines into bizarre works of fiendish art. Those who were fighting the fire either as volunteer fire fighters with the local authorities or simply to protect their own homes died instantly as the wave of flame engulfed them. When we came to examine the bodies the next day they were caught as if by some terrible photographer, frozen in their last action. The people had obviously been totally unaware of their approaching death. And yet, despite the holocaust,

some amazing stories began to emerge. The flame, with all its fury, had leapt inexplicably, leaving people in cars who were sure they were about to die untouched by the flame. The fickle flames of death had picked out some houses and not others, and nobody knows why.

At the forward command post we were waiting for the series of catastrophes that seemed inevitable. Private cars escorted by police from the road blocks arrived carrying the most terrible collections of injuries. Some patients were merely scratched and yet next to them would be somebody who was dead. Of course there were burns, some very severe, others so minor that you wondered what on earth had been going on. The first aiders were superb, the ambulance men untiring, and the doctor volunteers so impressive in the way that they followed their functions that you would have thought that we had rehearsed the whole thing within the previous week. The ambulance officers started evacuating high priority patients, and we treated minor injuries on the spot. I don't know what the final records will show, but I suspect that statewide fewer than 50 people actually died in that holocaust and probably only twice as many had to be admitted to hospital throughout the state. The first aid team had obviously treated thousands and thousands of victims and volunteer rescuers. We know that the loss of homes throughout the state was around the one and a half thousand mark. Some communities have been totally wiped out, others have lost more than half their dwellings. As sad as these facts are to those of us who live in such a beautiful place, another community from Hoddle's Creek to Powelltown has lost 45 000 hectares of commercial forest, and the whole viability of the industry for the next 30 to 50 years is in grave doubt. A water catchment has been burnt out and the way of life of the whole people changed for ever.

Despite all this it is refreshing to see the community spirit at work. The relief fund is already up into the tens of millions, and I have no doubt that when the bickering, Aberfan style, is over there will be an equitable distribution from that fund. Certainly, the stories coming through are heartening in their generosity. It has brought us together in a way that one hopes would happen in a disaster but inevitably in such a multiethnic society one wonders whether it will.

There are many lessons to be learnt from such a catastrophe, and if I have to pull two out one is that disaster planning is worth while and helps people to function automatically at a time of great personal crisis. The other is that communities pull together and the natural Australian optimism comes through, summarised in the phrase of one patient whom I saw the other day, who, when I asked him how was he going, replied "No worries, Doc." He is right.

A single memory stays with me: the desolation of the township of Cockatoo. Difficult to banish, that. Difficult to sleep, and if the world wants a symbol then let it cry for Cockatoo. I did.

Do aerotone baths, Jacuzzi baths, and similar hydrotherapies have any therapeutic value?

Underwater massage with a jet of warm water from a hose held by the therapist has long been an adjunct to hydrotherapy in spa treatment centres. In Jacuzzi baths the jet or jets are set in the walls of the bath, and in bigger baths may be conveniently positioned for the patient to manoeuvre himself so as to receive the jet on knee, hip, back, or shoulders. To increase skin friction the jet may be aerated, or in smaller baths air under pressure may be bubbled through the base of the bath. Various baths incorporating such features are commercially available, and are becoming popular in clubs, health centres, beauty clinics, or in private homes. These baths are pleasant and relaxing and help to relieve muscle and joint stiffness. In this way they may help the arthritic patient as well as the non-arthritic user. They are no substitute, however, for formal hydrotherapy, in which the therapist guides the patient in exercises specifically aimed at mobilising individual joints or muscle groups.—
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