

Chisholm Health Ethics Bulletin

Vol 7 No 1

SPRING

2001

Responsibilities of Pregnant Women

The idea that pregnant women might have been banned from playing netball raises questions about how we view pregnancy and a pregnant woman's responsibilities to her foetus. How responsible should pregnant women be for avoiding potentially harmful behaviours and for taking positive measures to promote the health of the foetus?

There was a great deal of attention focused on Netball Australia's moves earlier this year to ban pregnant players from taking part in netball games.¹ For several reasons the ban seems anomalous. Firstly, netball is a non-contact sport and therefore risk of injury from impact should be quite small. Secondly it is no more or less physically demanding than many other sports in which pregnant women's participation has never been questioned. However, I am not going to debate the pros and cons of such a ban. I merely raise the issue as a way of introducing a discussion of a variety of behaviours that may impact on the health and safety of a foetus.

Personal responsibility

It is generally accepted that we have at least some level of personal responsibility for our own health.² However, opinions differ on how far this responsibility extends. For example some argue that avoiding extremely health risking behaviours is all that is required while others support the claim that we are required to go further and we should exercise, eat healthily and take prescribed

"George Mung Mung

c. 1920-1991 Turkey Creek

Mary of Warmun
(*The pregnant Mary*) c. 1983

Carved wood, natural pigment
H.64.0 cm

Warmun Community, Turkey Creek

© George Mung Mung, 1983

*Reproduced with permission of
the Warmun Community."*

medications appropriately.³ The second claim supports our strong commitment to health promotion in Australia. Through education and advertising we attempt to encourage people to take actions that increase the likelihood of them remaining healthy or regaining their health.

If one does not accept that they have a responsibility to themselves to be healthy, or at least attempt to be healthy, perhaps they might recognise that they have a responsibility to their community to avoid being an unnecessary burden. Ill health costs taxpayers money in health care as well as potentially lost earnings, not to mention the emotional costs of illness to families and friends. Reducing these costs to the community should be everyone's responsibility. While some degree of personal responsibility for one's own health might be popularly supported it is unlikely that the

FEATURING

Responsibilities of Pregnant Women	1
Futile Treatments	4
Politics and a 'Just' Health Care System	7
Ethical Aspects of Treatment of Extremely Low Birth Weight Babies	10

community would take serious steps, apart from gentle encouragement, to coerce people into behaving in a health promoting way. For example, we actively discourage smoking and promote exercise through advertising but restricting a person's freedom to choose to smoke, by banning it (even in private homes), would, I think, be considered extreme. A pregnant woman, like everyone else, should take care of her own health but does she have 'extra' responsibilities because her actions directly and unavoidably affect another? Are responsibilities towards a child the same for parents before as after birth^{4?}

Risks and harms in pregnancy

Before dealing with the questions just posed I will briefly examine what types of behaviours can impact on foetuses in utero in both negative and positive ways. Many behaviours have been identified as influencing one's own health status and some of these can also affect the unborn foetus. In addition there are other behaviours that do not threaten harm to the pregnant woman herself but

smoking has long been acknowledged as potentially harmful for the foetus

that may endanger the health or life of the foetus. For example, consuming alcohol in moderation is thought to be at least non-harmful and some even argue that it is beneficial to an adult's health. However, no safe level of alcohol consumption has been recognised in pregnancy due to its potential effects on the foetus. The babies of women who are alcoholics and who continue to drink during their pregnancies can suffer Foetal Alcohol Syndrome, which has both developmental as well as physical implications for the child. Also harmful to the foetus in utero is drug use⁵ in particular, polydrug use (use of more than one drug). Drugs in this sense refers to both illegal drugs as well as many

prescription and over the counter medications, which have been identified as having harmful (or unknown) effects on the developing foetus. The harmful effects of drug use are magnified because it is often associated with other risk factors of poor foetal outcomes such as poor diet and lack of, or late access to, adequate antenatal care. Smoking has long been acknowledged as potentially harmful for the foetus, with smoking mothers having an increased risk of having a low birth weight baby and of the baby having respiratory difficulties including asthma. Other factors that pose potential harm to the foetus in utero include: environmental factors, physical safety, work place exposure to chemicals and exposure to contagious diseases like Rubella. Exercise and participation in sport are also factors that may influence the health of a foetus.⁶ It is recommended that pregnant women continue (or begin) appropriate exercise regimes and participate in sports. However, it is recognised that participation in some sports where there is a risk of violent body contact such as basketball or hockey or falls such as horse riding or water skiing should be avoided, especially after the first trimester. Another risk of excessive exercise is over heating, which should also be avoided during pregnancy.

Positive health behaviours in pregnancy

Research has identified particular maternal behaviours that are potentially harmful to the foetus, while also identifying behaviours that can influence the foetus' health in a positive way. Public health campaigns have been quick to promote the effectiveness of folate

particular maternal behaviours that are potentially harmful to the foetus

(folic acid) in reducing the incidence of neural tube defects such as spina bifida. Pregnant women and those

thinking about becoming pregnant are now encouraged to take folic acid supplements before conception and for the first trimester. Some researchers suggest that all women of reproductive age should take folate for this reason. Cereals and other foods have also been fortified with folate to increase dietary intake and reduce the number of neural tube defects in unplanned pregnancies (which account for about half of all pregnancies). Many pregnant women are also encouraged to take iron and calcium supplements in conjunction with a healthy diet. Women whose diets have been less than healthy prior to pregnancy often feel 'responsible' for their unborn foetus and change their eating behaviour accordingly.

What responsibilities do parents have?

When considering what a pregnant woman should do for 'her' foetus the question of what responsibilities or obligations she has to the foetus becomes very important. It should be noted that sometimes women are unaware of their pregnancy for quite some time. It is important to educate women to identify the signs of pregnancy and for women who have the potential to be pregnant to check if they are unsure before participating in behaviours that pose a threat to the foetus.

There is considerable literature discussing the issues associated with

parents are also responsible for their child's safety

forced caesarean delivery, where a caesarean is considered to be medically indicated but the pregnant woman refuses to consent to one. I will avoid this issue here as it requires a lengthy discussion of its own as well as detailed legal argument. However, I will consider what other behaviours or sacrifices a pregnant woman should be expected to make in the interest of her baby. Once children are born it is recognised that their parents have

particular responsibilities and obligations towards them. The community recognises these responsibilities and demands that the child will be taken care of. We expect that children will be cared for, fed, clothed and hopefully loved and respected. We have certain legal provisions to ensure that basic standards of childcare are met and if not the child can, as a measure of last resort, be removed from their parents' care. The community sees fit to judge good and bad parents and draw a line at what is inappropriate parental behaviour. Parents are also responsible for their child's safety. If a child was to be injured during a dangerous and risky activity, in which the potential harm was foreseen and avoidable, and the child was too young to know better themselves, the child's parents would, and should, be held responsible. How do these assessments of parental responsibility transfer to the behaviours discussed earlier which impact on the health and safety of a foetus.

The responsibilities of pregnant women

I recognise the vast literature that has discussed the unique relationship between pregnant women and their foetuses. However, I do not have space here to discuss the different views of pregnancy and the difficulties associated with one individual being completely dependent on another for their life. If we try to view pregnant women participating in risk taking

restricting individuals' freedom should never be entered into lightly

behaviours such as drug taking (including alcohol) or water-skiing and the potential impact they might have on their foetuses in the same light as other parental behaviours which involve risks to 'born' children it appears that pregnant women do have a responsibility to

avoid potential harms. A pregnant woman who knows she is pregnant and is aware of the risks associated with water-skiing should be held responsible for any injuries suffered by the foetus as a result of her actions. She has a responsibility to protect the foetus from avoidable harms, even if this requires that she give up her favourite activity for a short period of time. The issue of drug use is a little more complicated because often people are addicted to drugs. However, pregnant women should endeavour to seek treatment for their addiction and try to reduce their drug use and alcohol consumption as much as possible. I think it can also be successfully argued that where possible parents should provide their children with a well-balanced healthy diet and where necessary preventative health measures should be taken such as dental care. These responsibilities can be compared with pregnant woman taking folate supplements and exercising appropriately. Restricting individuals' freedom should never be entered into lightly.

pregnant women do have a responsibility to avoid potential harms

Banning pregnant woman from sport or forcing them to eat properly does appear extreme. On the other hand a child's life can be altered forever by the actions of their mother. All care should be taken to ensure that pregnant women are fully aware of the behaviours that may pose a threat to their foetus. Harm can occur very early in a pregnancy so it is important that all women who might be pregnant be aware of the risks and dangers of certain activities. Other measures taken to increase the benefits for unborn babies such as fortifying cereals with folate so that even women not 'planning' to get pregnant have the protective effect of folate offers their baby should continue to be encouraged.

Conclusion

It is difficult to detail fixed rules of

what exactly a mother should do for her foetus. However, I think there is reason to accept that if parents have a responsibility to their children once they are born then they have at least some responsibilities for them prior to birth. Every encouragement should be offered to pregnant women to protect their foetuses from harm. If they are finding it difficult to avoid health-risking activities then they should seek support, which should be readily available. Their behaviour no longer only impacts on

every encouragement should be offered to pregnant women to protect their foetuses from harm

themselves and for some this extra responsibility may be a reason for them to improve their own health status. Banning or restricting pregnant women's activities risks classifying them as a sub-set of people who can be unfairly discriminated against. Their actions should be directed towards the protection and benefit of their babies and this may require subtle encouragement from the community.

ENDNOTES

¹J Szego & C Saltau, *The Age* 20 June 2001.

²Gerald Dworkin, 'Taking Risks, Assessing Responsibility', *The Hastings Centre Report* (October 1981) 26-31.

³B M Ashley & K D O'Rourke, *Ethics of Health Care: An Introductory Textbook Second Edition*, (Washington DC: Georgetown University Press, 1994) 55-69.

⁴H Draper, 'Woman, forced caesareans and antenatal responsibilities', *Journal of Medical Ethics* 22 (1996) 327-333.

⁵The Australian Drug Foundation website has information explaining the risks associated with taking a variety of drugs during pregnancy, www.adf.org.au/adp/index.html Accessed 25/9/2001.

⁶*Exercise and Pregnancy Pamphlet* produced by RANZCOG (Royal Australian and New Zealand College of Obstetrics and Gynaecology) 1994. ✚

Tracey Phelan

Futile Treatments

This article will discuss concepts of medical futility and why determinations of it are very difficult to make. Understanding that medical futility is a very complex issue should enhance ethical decision making.

Medical technology and scientific knowledge have advanced so much that it is becoming increasingly difficult to decide when there is a duty to sustain life and when a treatment is no longer appropriate. *Beneficial proven therapies* are treatments that evidence based practice and experience have shown to benefit certain groups of patients. *Experimental therapies* may be promising but as

futile therapies fail empirically to confer any significant benefit

yet there is insufficient supportive evidence to prove that the expected benefits will be conferred to patients. Clinically controlled trials are one way of testing the potential benefits of these experimental therapies. *Futile therapies* fail empirically to confer any significant benefit on certain groups of patients.¹ While patients should always be offered beneficial therapies there is no ethical obligation to recommend all unproven or futile therapies. However, the spuriousness of the concept of futility and the subjective nature of what constitutes a potential benefit and for whom, has meant that judgements of medical futility are hotly debated and often it is difficult to find a resolution.

What is futility?

The word 'futile' is often used to describe anything that is useless, ineffectual or pointless. The word comes from the Latin word 'futilis' which means leaky. An analogy of a futile activity can be seen in the story of the daughters of Danaus, King of Argos who upon instruction from their father killed their husbands and were condemned in the afterlife to a penance of perpetual labour, carrying water in leaky jars from the river Styx.

Futile can be used to describe 'any effort to achieve a result that is possible but that cannot be systematically produced.'² Futility can be used to describe the absence of any desired effect. If the desired effect of 'medical intervention is to benefit the patient, (by direct benefit, by avoidance of harm, or by respecting the patient's autonomous choices),'³ then interventions that do not achieve a desired benefit may be considered as futile. Futility establishes the negative determination that evidence, and this may be statistical fact or anecdotal, gives no indication of a significant likelihood of conferring a significant benefit.

futile activities must be distinguished from those that are impossible

Futile activities must be distinguished from those that are impossible. Impossible acts or interventions will never succeed even under the 'best' conditions. Antibiotics for a viral infection will never cure the condition. Danaus' daughters were not attempting the impossible. Carrying water from the river Styx was possible but the activity was made futile because given their leaky jars they would probably never be successful in achieving their goal. Futility therefore does not refer to an outcome whose probability is zero, rather it refers to a process that is rational and goal directed but is unlikely to succeed.⁴

Medical futility

The notion of medical futility should be totally distinguishable from rationing where a therapeutic benefit is acknowledged and accepted but questions arise about whether it is worth utilising resources or whether there are competing demands on those resources. Rationing treat-

ments because of lack of resources is not a decision based on the probability of achieving a desired benefit.

Two types of medical futility are discussed in the literature. Firstly there is quantitative futility, which is when physicians determine through empirical data, information from other physicians, or personal experience that a medical intervention will not be beneficial because it has been useless in the last 100 cases. There has been much criticism of the concept of quantitative futility as it has been argued that such forecasts of failure of treatments cannot really be statistically predicted. Collecting the necessary data to justify a judgement of whether a treatment is futile is difficult as very few doctors are either in a position to precisely recall the last 100 cases where this treatment was used or to control for any variables present in those cases. Also there are very few articles written in medical and scientific journals that describe treatment failures.⁵ Such difficulties in collecting objective information therefore may suggest that a determination of quantitative futility must also have a subjective component contributed by the doctor's own personal values and perceived inter-

one can never be 100% sure that a treatment is beneficial

ests. Schneiderman et al defend their concept of quantitative futility by making a comparison with the justification used in the statistical evaluation of clinical trials.⁶ One can never be 100% sure that a treatment is beneficial, or non-beneficial or better or worse than another treatment or no treatment, so observations have to be submitted to the test of reasonableness.⁷ It is the doctor's duty to present the information that a reasonable person requires in order to make an informed decision. Perhaps the

question to ask is not whether the treatment will work but how many times we are willing to see a treatment fail before we will acknowledge that it does not work and is therefore futile. One important point to highlight here is the need to evaluate the futility of interventions as much as their effectiveness and 'success'.

The second type of medical futility discussed in the literature is qualitative futility, which is when an intervention only sustains a person in an unconscious state or, does not end the person's total dependence on intensive medical care⁸. While these interventions may be mechanistically effective in maintaining life they often only do so for a short period after which time the person may die from an underlying illness. Qualitative judgements of futility involve value judgements and are often made on behalf of incompetent people.

Benefits and goals of treatment

The goal of treatment must be determined in any judgements about medical futility. According to Schneiderman and Jecker 'physicians should distinguish between an effect, which is limited to some part of the patient's body, and a benefit, which the patient has the capacity to appreciate and which improves the patient as a whole.'⁹ Tube feeding will predictably sustain the life of a permanently unconscious person by nourishing and hy-

'benefit' and 'burden' are ambiguous concepts

drating them but should this be the goal of medical treatment? Is prolonging the life of this person a benefit? If the tube feeding is deemed futile this does not mean that the therapy itself is ineffective, only that the effect of the therapy may not be beneficial to the patient.

What constitutes a benefit to a particular patient must also be ascertained. 'Benefit' and 'burden' are

ambiguous concepts as different people value different things. For some it is the maintenance of life itself that is seen as a benefit that must be protected at all costs. Others however emphasise that it is the quality of the maintained life that determines whether or not the treatment should be instigated or withdrawn. There is also the question of whose benefit should count in determinations of futility, as it may be that it is the best interests of family or caregivers that are being considered rather than those of the patient. However, in the case of family it may be that they need time to come to terms with their loved one's condition and future

many 'not for CPR' protocols list 'futility'

prospects so such interventions as ventilatory support may be maintained for longer than would be deemed objectively in the patient's best interests.

Judgements of futility

Swanson and McCrary conceptualise judgements of futility as having the following two dimensions - '(1) the degree of meaningful benefit to the patient (or the patient's family) that the physician believes potentially may be gained from treatment - ie. the goal of treatment; and (2) the subjective probability of achieving that potential benefit or goal.'¹⁰ Their research suggests that physicians differ widely in their understanding of futility and there are many nonmedical characteristics and personal attitudes that may influence this including apparent denial of the concept of futility on the part of some doctors and a misplaced legal defensiveness.¹¹

Futility and cardiopulmonary resuscitation (CPR)

Futility and cardiopulmonary resuscitation is much debated. Current practice in many places in Australia dictates that all people in hospital will be resuscitated unless there is a

direct order to the contrary. 'Not for CPR' orders were developed to spare the patient from a resuscitation attempt when death is imminent and inevitable or when the patient would be so severely disabled and have such a poor prognosis that the distress caused by the resuscitation procedures would be disproportionate to the result. Many 'not for CPR' protocols list 'futility' as a reason why resuscitation may not be indicated. In the case of many people this is clearly a subjective judgement. CPR for people in the late stages of cancer with an extremely poor prognosis may appear to be futile to others. However, if there is a particular event that the person is looking forward to it may be in their best interests to be resuscitated even if it will not guarantee success or a reasonable quality of life without burden. 'Not for CPR' orders should be reviewed regularly as peoples' conditions alter and what they see as their goal may also change and so their treatment should be adapted accordingly.

Medical futility, burden and the competent patient

There is little dispute that competent people should have the right to refuse treatment within certain parameters¹² and there are, in many jurisdictions, statutes to protect this right. Competent people may refuse treatment because it is too burdensome. This determination is often made because the burdens - and these can take many forms - outweigh the expected benefits of treatment as ascertained by the patient. In other words the patient may decide that the treat-

competent people may refuse treatment because it is too burdensome

ment is, or will be, futile. It must be said however that although the competent patient will ultimately make the decision about refusing treatment or withdrawing from it, it is health care professionals who generally provide the information about the treatment that contributes to the decision. Determinations of futility

made by health care professionals are based on the assertion that they can reliably predict that certain treatments will provide no benefit and should therefore be withheld. If the physician is uncertain they should seek a second opinion or refer the patient to another professional.

Medical futility and the incompetent patient

Judgements about the futility of a treatment are most ethically contentious in cases where the patient is incompetent. In particular in recent years the concept of futility has arisen in relation to the use of artificial nutrition and hydration for those people who are permanently unconscious. In such situations it is *other* people who have to decide whether a medical intervention is futile. These other people may be a proxy, who is the person's guardian or their next of kin who hopefully make decisions based on what they think the person would have wanted if they were competent or, doctors who use their professional judgements.

In the case of incompetent patients there is often a desire by next of kin to try and do everything possible for them as if the lengths to which one goes determines how much one

if the lengths to which one goes determines how much one cares

cares. If one has the responsibility to make decisions on behalf of others one must be sure that they are not based on how it will affect them personally. We must ensure that we are not inflicting treatment on incompetent people that is more burdensome than what we would want for ourselves.

Demand for medically futile treatment

The issue of whether we have the right to demand treatment, especially therapies that may be determined quantitatively futile, is debatable. This is perhaps the time when the problem of limited resources be-

comes intertwined with futility. While the determination of futility should not depend on resource allocation the question of whether such treatments should be provided does. Benefit from a futile treatment may be possible but it is significantly unlikely and providing one person with absolutely every treatment may mean that others miss out on even basic therapies. This is especially pertinent in publicly funded health care systems.

Conveying futility

When communicating that a treatment is futile the patient or their family should not get the message that there is nothing more that can be done. While the focus of care may change to palliative measures the patient, or in the case of the incompetent patient their family, should be reassured that everything possible will be done to ensure that the patient is kept comfortable and that their dignity is maintained. The compassionate response to a pa-

their dignity is maintained

tient's or family's request for a futile treatment is open and truthful. Hopefully the health professional will endeavour to understand the reasons and motivations for the request and work through them in order that the patient or their family has a realistic understanding of what they are asking for and its ramifications.

Conclusion

The goal of medicine should not be to affect one part of the body but to benefit the patient as a whole. 'Futility is a concept that is inextricably bound up with a social understanding of the nature and purpose of the practice of medicine and the nature of the relationship between patient and health care provider.'¹³ There will always be disagreements about which treatments are futile because informed people of good will disagree about what constitutes a genuine benefit, what ought to be

done in the borderline cases, and what role people's quality of life should play in treatment decisions.¹⁴ It is not the treatment itself that is futile but the use of the treatment for a particular person in specific circumstances.

ENDNOTES

¹ N S Jecker and L J Schneiderman, 'Judging Medical Futility: An Ethical Analysis of Medical Power and Responsibility', *Cambridge Quarterly of Healthcare Ethics* No 4 (1995) 23.

² L J Schneiderman, N J Jecker and A R Jonsen, 'Medical Futility: Its Meaning and Ethical Implications', *Annals of Internal Medicine* 112/12 (15 June 1990) 951.

³ M Ardagh, 'Futility has no utility in resuscitation medicine', *Journal of Medical Ethics* 26 (2000) 396.

⁴ T Prendergast, 'Futility and the Common Cold: How Requests for Antibiotics Can Illuminate Care at the End of Life', *Chest* 107/3 (March 1995) 836 – 844.

⁵ R Halliday, 'Medical futility and the social context', *Journal of Medical Ethics* 23 (1997) 149 – 150.

⁶ L J Schneiderman, N J Jecker and A R Jonsen, 'Medical Futility: Response to Critiques', *Annals of Internal Medicine* 125/8 (15 Oct 1996) 672.

⁷ L J Schneiderman et al, 'Medical Futility: Response...', 672.

⁸ S Coppa, 'Futile Care: Confronting....', 18.

⁹ L J Schneiderman and N J Jecker 'Futility in Practice'. *Archives of Internal Medicine* 153 (Feb 22 1993) 437.

¹⁰ J W Swanson and S Van McCrary, 'Medical Futility Decisions and Physicians' Legal Defensiveness: The Impact of Anticipated Conflict on Thresholds for End-of-Life Treatment', *Social Science & Medicine* 42/1 (1996) 125.

¹¹ Swanson and Van McCrary, 'Medical Futility Decisions...', 125.

¹² It must be determined that the patient is not suicidal.

¹³ R Halliday, 'Medical futility and the social context', *Journal of Medical Ethics* 23 (1997) 148.

¹⁴ L M Kopelman, 'Medical Futility'. *Encyclopedia of Applied Ethics*, ed Ruth Chadwick, Academic Press, California USA, 1998, 3, 196. ❖

Deirdre Fetherstonhaugh

Politics and a 'Just' Health Care System

A health care system must be 'just' if it is to be ethical. This paper will look at some examples of how politics has impacted on the Australian health care system and as a result 'justice' is not always achieved.

[Abridged version of a paper delivered at Royal College of Nursing conference 'Multidisciplinary Ethics', July 2001.]

A 'just' health care system

To determine whether a health care system is 'just' means evaluating it in terms of whether it is equitable, efficient, effective and acceptable. There must be equity of access in that there shouldn't be financial, geographic, gender or racial barriers to health care. The outcomes from health care interventions should be equitable. This may mean that there should be a greater allocation of resources in areas where the community need is greater, in order to achieve the same outcomes as those attained in communities where the need is not so great. Health care should therefore be distributed so that inequality is reduced by improving the health of the worst off in society and narrowing the health gap. In Australia this could mean a greater injection of resources to combat such diseases as diabetes or renal failure in the Aboriginal and Torres Strait Islander communities where the incidence of such diseases is higher than in other populations.

inequality is reduced by improving the health of the worst off in society

'Allocative efficiency is concerned with ensuring the best allocation of resources in the health care system, so that the inputs allocated to the health care system yield the best possible outcomes.'¹ Allocative efficiency within a health care system can only be achieved if there is technical proficiency, the system is effective in achieving its goals, the system adapts and embraces change and, there is appropriate priority setting.² Decisions about which areas should be allocated resources have to be made between different diseases, within diseases, between preventive and curative interventions, between funding different contexts of care and between funding different services that could meet the same health care need. The acceptability of a health care system should be evalu-

ated from the perspective of patients, communities and providers.

The Australian health care system

Many countries and communities consider access to basic health care as a human right and one which should be supported by the government through public funding. The actual composition of a basic health care package is contentious and there is not uniform agreement on what should be included. While 'need' may be used to determine access to basic health care the concept of 'need' is left undefined. According to Sidney Sax government policies recognise some services but not others, 'boundaries to medical practice are seldom set, the weights of relative needs are not taken into account, and geographic availability may be determined by considerations of efficiency rather than equity.'³

The public health care system in Australia is complicated due to the fact that both the Commonwealth and the state/territories fund and provide health services with a third tier, local government, also performing a role as health care provider. This means that there are overlapping, split responsibilities and it is very difficult to develop comprehensive national policies. The Australian health care system is also characterised by 'the dominant role of private practitioners in providing care, mostly on a fee-for-service basis, but with governments increasingly influencing the structure of health services through their financing arrangements.'⁴

No health care system exists in a vacuum and the ideologies of political parties whether they are actually in or out of government, have had, and will continue to have a huge impact on the design and running of the Australian health care system. Given that each State and Territory has its own government which may or may

not be of the same ilk as that which is in power in Canberra, it is hardly surprising that there are inconsistencies within the health system and it is difficult to determine from the outside exactly what it is that the health care system is trying to achieve.

In 1975 the Commonwealth Labor government decided that all Australians regardless of their ability to pay should have access to basic health care. This initial form of national health insurance was known as Medibank and the revised program which was introduced in 1984 and which exists today is known as Medicare. According to Neal Blewitt the introduction of national insurance by the Labor party at that time was consistent with its underlying philosophies that were egalitarian in ambition, distrustful of the workings of the market in health, and favoured universal entitlement, compulsory if necessary, to ensure greater scope for the less well-off to make choices.⁵ At the same time 'the Liberal National coalition believed in personal responsibility for health, with provisos for the less fortunate; feared moral hazard; and opposed compulsion fearing that it

no health care system exists in a vacuum

threatened the freedom of the providers to provide and the consumers to consume.'⁶ Since the initial introduction of Medibank as a form of universal health care coverage there have obviously been several changes of government and the disagreement between the two major political parties about the type of health care system that Australia should have, has meant that any change of government over a generation promised or threatened the introduction or re-introduction of a fundamentally different health care scheme.⁷ A three-year term in government is not conducive to the development of long-term plans or effective evaluation of implemented systems. Even today

when the concept of universal access has gained bipartisan support from the Australian body politic⁸ there is still great criticism and lack of co-operation between governments about Medicare despite the fact that they may be of the same persuasion at federal and state level.

Medicare encompasses the Medical Benefits Scheme (MBS), the Pharmaceutical Benefits Scheme (PBS) and hospitalisation in a public hospital. Through the MBS the public are directly reimbursed by the Commonwealth for a proportion of their medical costs, according to a Government pre-determined fee. There is no limit to these services. Actual usage depends on demand. Patients are directly reimbursed the cost of prescription drugs (that have been specifically listed) above identified co-payment levels or annual 'safety net' levels through the (PBS). The PBS is also uncapped and dependent on demand. The Australian Health Care Agreements (previously known as the Medicare Agreements) between the Commonwealth and States/Territories guarantee free access to hospital care according to clinical need for anyone who presents as a public patient. The budget allocated to fund these agreements is capped and forever a source of bargaining between the two levels of government. Over the course of the 1993 – 1998 agreement it became obvious that although the states had acceded to the key obligations of Medicare, both politically and in the form of the signed agreement, states/ and or their hospitals had attempted to circumvent their obligations through cost shifting and other strategies.⁹ Cost shifting is inevitable when state managers seek to address budget problems by transferring programs from contexts of fixed expenditure to readily accessible Commonwealth entitlement programs such as the MBS or the PBS. The privatisation of outpatients' clinics in public hospitals so that the MBS becomes the funder is an example of cost shifting.

While in theory everyone in Australia has free access to public hospital care it is in the definition of clinical need that the rationing of hospital beds is applied. Waiting lists may appear to be an ethical way of allo-

cating hospital services but the method and criteria used to place people on such lists is not always appropriate. An interpretation of 'urgent' seems especially intangible when people needing cardiac bypass surgery are allocated to a 'semi-urgent' category and then have a heart attack or an acute exacerbation of chest pain while on the waiting list.

Private health insurance

According to the Commonwealth Department of Health and Aged Care private health insurance is an important component of health care funding in Australia as it comprises about 11% of total national funding on health care.¹⁰ For those who are privately insured there is some degree of choice when it comes to the treating doctor, the timing of treatment and the hospital. The problems inherent in gaining admission to a public hospital for a hip replacement via Medicare can be overcome with private health insurance. If 'extras' insurance is also taken out there is assistance in meeting the costs of ancillary services such as dental, physiotherapy or chiropractic, services which are not covered by Medicare.

Private health insurance declined with the introduction of Medicare and the Commonwealth coalition government has used different strategies to encourage people to join health funds. There have been rebates and subsidies and changes to the regulatory controls on health funds. Health insurance products have been packaged so that they are attractive to specific groups. Perhaps the biggest incentive by the coalition government has been the 30% rebate on private health insurance initiated in January 1999. The Labor government on the other hand have 'pursued a passive policy of allowing health insurance to continue to decline'¹¹.

Support of private health insurance would seem to be consistent with the coalition party philosophy of personal responsibility for health and consumer choice. However, access to particular health services only for those who have the ability to pay does not endorse the principle of eq-

uity which should be supported in a 'just' health care system. Private health care also needs to be objectively evaluated for its efficiency when compared to the same health interventions in the public system. Given that almost half the population can access both systems, albeit not always when it suits them, shouldn't they be encouraged to use what is most efficient and effective?

Dental health

Within the current status of Medicare, medical and pharmaceutical services are seen as the responsibility of government through the national health system whereas dental services for adults are seen as the responsibility of individuals. 'Policy development to improve adult dental health and dental care has been restricted by attitudes that regard oral health as separate from general health, oral disease as preventable (and therefore an individual responsibility) and dental care as having limited dependency.'¹² Interestingly, all states and territories have programs of universally available, free or reduced cost *school-based* dental care with such care being seen as a collective responsibility and an investment in the nation's future oral health.¹³

The lack of any national policy in dental health has led to the movement of resources into and out of publicly funded dental care and great disparity between programs at a

the ability to pay does not endorse the principle of equity

State/Territory level. Public dental care is rationed, firstly at the level of the Commonwealth in its decision whether to be involved in the provision of dental health services and secondly, at the State/Territory level, where the decisions about program budgets are made. Currently, State governments fund public dental services for people with concession cards at community health centres, dental hospitals, general hospitals (in rural areas) and by private dentists. However, severe restrictions in funding for public dental services means that there are 500,000 people on the waiting lists around Australia¹⁴ and only about 11% of those eligible for treat-

ment receive it each year.¹⁵

While most prevalent dental diseases may not be life threatening they are associated with pain and suffering, are causes of considerable physical, social and psychological disability and can have a negative impact on quality of life.¹⁶ There is therefore an argument to support the inclusion of dental services within a publicly funded just health care system especially when those who can afford private health cover receive a 30% rebate for their dental insurance.

'Organising public dental care has become a "buck-passing" problem between different levels of government. An agreement between the Commonwealth and States and Territories is required so that discussion

500,000 people on the waiting lists around Australia

on public dental care can be policy-shaping not political, long-term not immediate, creative not negative.'¹⁷

Strategies for improvement

It will never be the case that we can meet all the health care needs and expectations of the community. We do have a national health system but it is uncoordinated with some programs open ended while others are severely capped. Commonwealth and State/Territory governments should openly affirm their aims with respect to rationing. If changes are going to be made in such areas as the level of health care funding, service provision or accessibility the public should be fully informed of the intent of doing so and they should have the opportunity to express their views.

An ongoing national health forum which does not change every three years and meets regularly to discuss health policies and strategies could contribute to the development and maintenance of a nationally coordinated health care system. The system must have a consistent vision for the future while being adaptive to changes in technology and knowledge and be totally confirming about the principles and values it supports. Such a forum would include representation from governments and ma-

major political parties, funders, providers, special interest groups and consumers.

A change in the existing Commonwealth-State division of responsibility and funding could theoretically lead to greater equity and improved efficiency and outcomes as currently whenever politicians or political parties are under stress they attempt to shift blame and no-one is accountable. According to Stephen Duckett 'aspects of Commonwealth-State relations, including dissipation of responsibility, program boundaries inhibiting allocative efficiency and system complexity' have led to a failure to address some of the following problems which have been identified when evaluating the Australian health system in terms of equity, efficiency and acceptability. These problems include: waiting times for elective surgery in public hospitals; access to primary care in remote centres; the health status of Australia's Aboriginal and Torres Strait Islander population; the inability to demonstrate that high-quality care is being provided; the level of investment in non-medical services such as allied health and natural therapies; variation in utilisation rates; dynamic efficiency, including lack of policy experimentation at the system level and; the absence of a universal infrastructure of non-medical primary care services'.¹⁸

Conclusion

The politics of government and opposition should not determine health policy especially when it is likely to be undermined after the next election. Part of the role of government should be to educate the community about the health system so that an informed public can discuss health care priorities. A 'just' health care system is one that is equitable, efficient, effective and acceptable. The effects of current governmental and political relationships have meant that the perception that there is equity in the health care system must be challenged because those people who have the greatest need do not always have access to services.

ENDNOTES

¹ S J Duckett, 'Policy challenges for the

Australian health care system', *Australian Health Review* 22/2 (1999) 134.

² Ibid, 138.

³ S Sax, 'Organisation and delivery of health care' in *The Politics of Health* (ed) Heather Gardner, 1989, Longman Group UK Limited, 225.

⁴ Commonwealth Department of Health and Aged Care Occasional Papers New Series No 1, *Reforming the Australian Health: The Role of Government*, March 1999, 1.

⁵ N Blewitt, 'The politics of health', *Australian Health Review* 23/2 (2000) 12.

⁶ Ibid, 12.

⁷ Ibid, 12.

⁸ Commonwealth Department of Health and Aged Care 'Reforming the...', 5.

The Liberal National Party coalition finally declared their support for Medicare in the run up to the 1996 election R Scotton, 'Medibank: From conception to delivery and beyond', *Medical Journal of Australia* 173 (3 July 2000) 11.

⁹ S J Duckett, *The Australian Health Care System* (Victoria: Oxford University Press, 2000) 36.

¹⁰ Financing and Analysis Branch, Commonwealth Department of Health and Aged Care, The Australian Health Care System, September 2000 accessed on 29/5/01 at <http://www.health.gov.au/haf/ozhealth/ozhcsyspart3.htm>

At the end of the March 2001 quarter 44.9% of Australians have private health insurance – 8.712 million Australians according to the Private Health Insurance Administration Council accessed on 21/9/01 at http://www.phiac.gov.au/phiac/stats/MemCov/hos_quar.htm

¹¹ S J Duckett, *The Australian...*, 38.

¹² A John Spencer, 'What options do we have for organising, providing and funding better public dental care?' The Australian Health Policy Institute at the University of Sydney Commissioned Paper Series, 2001, Abstract.

¹³ Ibid, 1.

¹⁴ Ibid, 23.

¹⁵ Stephen Ziguras and Cathy Moore, 'Improving the Dental Health of People on Low-Incomes', *Brotherhood of St Laurence ACOSS Background Paper* 2001, 1.

¹⁶ See A John Spencer, 'What options ..', 20 - 21.

¹⁷ Ibid, Abstract.

¹⁸ S J Duckett, 'Policy challenges..' 140.

Deirdre Fetherstonhaugh ✦

Ethical Aspects of Treatment of Extremely Low Birth Weight Babies

Recent high tech procedures for saving extremely low birth weight babies gives joy to many but they also raise some ethical issues. This article briefly discusses some of these issues.

Low birthweight babies

Extremely low birthweight (ELBW) infants weigh <1000g and are .04% of all live births.¹ In Table 1 are given mean fetal weights according to gestational age.²

Gestational age in weeks	Weight in grams
20-21	420
22-23	552
24-25	690
26-27	874

Table 1. Mean fetal weights according to gestational age modified from *Journal of Paediatrics and Child Health* 26 (1990) 102.

Neonatal intensive care

Neonatal survival rates have improved dramatically since the 1940s when newborns <1,000g did not generally survive in England and Wales.³ By the mid-1990s 85-90% of ELBW newborns survived.⁴ From 1990-94, the neonatal intensive care unit (NICU) survival rates of the Loyola University Medical Center were better, see Table 2.⁵

Gestational Age weeks	Survivors %
22-23	19
24-25	63
26-27	88

Table 2. Modified from Neonatal Survival Rates in *Cambridge Quarterly of Healthcare Ethics*, 8 (1999) 162.

Survival rates of live preterm newborns in a hospital with a NICU over the three years 1994-1996 are given in Table 3.⁶

Gestational age (weeks)	Live births	Survivors percentage
23	31	35.5
24	36	65.6
25	46	73.9
26	64	85.9
28	75	96
32	262	98.1

Table 3. Survival rates by gestational age modified and calculated from data in the Royal Women's Hospital in Melbourne, *Medical Journal of Australia* 7 June 1999.

It is worth noting that 14% of 154 deaths in NICU of newborns of 23-27 weeks gestation was caused by infection during 1983-90 whereas it was 44% of 80 deaths in the same NICU for the same gestational age during 1992-96.⁷

Survivors with disabilities

Of newborn survivors of <800g in the University of Washington, major impairments were found in 22% born in 1986-1990, 21% born in 1983-1985 and 19% born in 1977-1980. The rates of cerebral palsy, mental retardation, blindness, and deafness have remained stable in the 1980s and 1990s.⁸ While more preterm infants survive in good health, there are also more surviving with difficulties — neurological, emotional and intellectual as well as physical disabilities and an excess of neurocognitive and behavioural problems in adolescents with respect to their controls.⁹ Low survivor and severe disability rates for ELBW newborns have some relevance to the ethics of treatment decisions for borderline ELBW newborns.

Ethical issues in the treatment of newborns

General principles and criteria

Ethics requires all that is necessary and reasonable ought to be done in the best interests of the newborn baby to preserve life and restore health. It is not a matter of saying one life is worth more than another, nor of being guided only by vague generic quality of life criteria. Doctors have the difficult task to determine when the benefits of treatment outweigh expected burdens and risks of harm. Neonatologists are qualified to make these assessments. The British Bishops agreed doctors need not attempt to prolong the lives of newborns

who cannot achieve at least that degree of well-functioning which would be sufficient to enable them to share in some of the goods of human life. [e.g. communication... or especially relevant to babies, some form of play or the sheer appreciation of one's own vitality].¹⁰

Doctors should not act against their judgement to comply with parents' wishes by aggressively treating newborns to save their lives when the outcome would result in prolonging a distressing dying process. But in cases where doubts persist the parents, as their child's natural trustees, may assume more responsibility in making the decision between the various treatment options, bearing in mind the likely benefits, risks, short- and long-term prospects for the child, including the burdens of physical and psychological suffering and the capacity of the family to cope. The prospects of a burdensome existence should not be lightly dismissed when making these decisions. It could be that the reasonable and morally permissible option, on the balance of probable benefits over burdens, is equally poised between treatment and non-treatment, pro-

vided normal medical and nursing care continue. In such grey zones subjective factors play a role in decision making. Parents may then have no less expertise than doctors in making the right decision and doctors should normally defer to the judgement of the parents in such cases.¹¹

Treatment of extremely low birthweight babies

As a preliminary remark, anticipated premature deliveries should, as far as possible, be prevented by early admission to a level 3 hospital for therapy aimed at stabilising the pregnancy to delay birth. In the light of the facts of NICU deaths caused by infection mentioned above, it is ethically imperative to improve infection control in NICU in relation to procedural practices and the avoidance of overcrowding in NICU itself.

A fair presumption is that ELBW babies should be treated aggressively unless a proper assessment deter-

ELBW babies should be treated aggressively unless a proper assessment determines it could not save life, prolongs the dying process, results in untreatable distress or would be futile without any reasonable hope of permanently maintaining spontaneous respiration

mines it could not save life, prolongs the dying process, results in untreatable distress or would be futile without any reasonable hope of permanently maintaining spontaneous respiration. Treatment would be virtually futile if it is linked to intractable pain for a disproportionate potential benefit. While refusing to initiate treatment without good reasons may be compared to 'obstetrical soothing', there is no ethical duty to resuscitate an infant at birth if it is clear that the prognosis is one of ongoing severe pain and suffering; however obstetricians should be cautious to refuse to involve a paediatrician and the NICU team. Where it is not possible to transport the child to a centre with NICU facilities ELBW babies should be kept comfortable until they die naturally.

Parents should be reasonably and honestly informed and helped to share in making treatment decisions for their ELBW babies where death or life with serious disabilities are likely outcomes. Counselling may be needed and obstetricians are probably the best suited to do this because they already know the family situation of the mothers who have to care for their child, with or without significant neurological or other disabilities. To this end, if an ELBW baby is expected to have very poor prospects an action plan should be discussed with the parents prior to delivery. Decisions to forego, or withdraw, NICU treatment should be made in the best interests of the child and in consultation with the parents.¹²

National ELBW and gestational age survival rates are only indicative and from them alone absolute cut-off points for NICU cannot be determined. Congenital abnormalities and other relevant complications should always be considered together with the hospital's current survival rates by gestational ages and birthweights as both are important when determining if NICU treatment should continue. The human factor for all concerned

cannot be neglected. The benefits of continuing NICU have to be proportionate to the burdens likely to be caused to newborns, their parents, the community and the distress endured by NICU staff.¹³ Continued NICU treatments would not be ethically necessary if, in the words of John Paul II, they

no longer correspond to the real situation of the patient, either because they are by now disproportionate to any expected results ... It needs to be determined whether the means of treatment available are objectively proportionate to the prospects for improvement.¹⁴

Traditionally, treatment that is too burdensome to the patient has always been accepted as ethical grounds for refusing it. In this sense pain and suffering are in a high level category of quality of life criteria with ethical significance. Risks of lower level quality of life criteria like deafness, blindness or mental impairment should not alone determine whether NICU treatment should be discontinued. ELBW Down Syndrome babies should be given NICU treatment to enable them to survive. It would be quite another matter if the prognosis of an ELBW baby was survival with considerable pain or with frequent burdensome invasive treatment for life or with life-long severe physical and mental disabilities. It is to be noted that severe intellectual disability in ELBW babies is rarely found in isolation from severe physical disability, eg cerebral palsy.

Assessments of viability at the margins and of NICU treatment for ELBW infants should be made case by case

it would be ethically permissible, but not necessary, to initiate NICU treatment for newborns of 23 completed weeks gestation and weighing at least 400-500g at birth

as the combination of maturity, condition, weight, sturdiness and prior maternal administration of steroids to accelerate fetal lung development is unique for each infant. It has been said 'two 24-week-gestation infants are no more alike than two 12-year old children entering puberty.'¹⁵ It would be decided at birth that NICU treatment would be futile for a newborn of 20 weeks gestation and weighing <350g. Clearly a healthy baby born at 28 weeks gestation and weighing 900g would be viable and should certainly receive NICU treatment. Drawing the line for the birthweight and gestation age of viability when NICU may, but need not be used, and when NICU should be used is more difficult. This is a grey area where the professional judgement of neonatologists may legitimately differ.¹⁶ Painstaking clinical judgements are required to determine those ELBW babies for whom continued treatment is warranted in the light of the probabilities of survival, the proportionate benefits received and any likely severe disabilities the child may have over the years. A survey of neonatologists' attitudes found one third of them as parents would not give their own ELBW infants the same aggressive treatment they as physicians give to others ELBW infants: this may suggest that treatment of some ELBW babies may be going too far.¹⁷

Newborns of 22 completed weeks gestation and <400g birthweight should not be resuscitated since their prospects of surviving would be extremely poor. In general it would be ethically permissible, but not necessary, to initiate NICU treatment for newborns of 23 completed weeks gestation and weighing at least 400-500g at birth. After assessment and consultation with the parents, a decision could then be made whether it is warranted to continue NICU treatment for these babies, granted their very poor prospects, survival rates of about 30% and likely disabilities.¹⁸ This would satisfy the duty of reasonable care and allow a more equitable allocation of NICU facilities for a greater number of older preterm babies for shorter periods of time.

By 24 completed weeks gestation and a birthweight of 500-600g I believe the presumption should favour a duty to resuscitate and provide NICU treatment unless it is confirmed

**by 24 completed weeks gestation and a
birthweight of 500-600g ... the presumption
should favour a duty to resuscitate and provide
NICU treatment**

by assessment that the baby is not responding well and the parents are in agreement. Where NICU is available, from 25 completed weeks gestation and a birthweight >600g, barring other complications, it would be ethically required to resuscitate and treat all newborns in NICU in the light of survival rates greater than 70%.¹⁹

ENDNOTES

¹ Malcolm Levene *et al.*, *Essentials of Neonatal Medicine 3rd edn.* (Oxford: Blackwell's Science, 2000), 1-2; for the breakdown of infants' birthweights see Peter Day *et al.*, *Australia's mothers and babies 1997* (Sydney: AIHW Neonatal Perinatal Statistics Australia, 1999) 81.

² L Cussen *et al.*, 'Mean organ weights of an Australian population of fetuses and infants', *Journal of Paediatrics and Child Health* 26 (1990) 102.

³ D J Henderson-Smart, 'Low Birth-weight Babies: Where to Draw the Line?', *Trends in Biomedical Regulation*, ed H Caton, (Sydney: Butterworth, 1990) 146.

⁴ Forrest C Bennett and David T Scott, 'Long-Term Perspective on Premature Infant Outcome and Contemporary Investigation Issues', *Seminars in Perinatology. Outcomes of Low Birthweight Premature Infants* 21/3 (1997) 190.

⁵ Jonathan Muraskas *et al.*, 'Neonatal Viability in the 1990s: Held Hostage by Technology', *Cambridge Quarterly of Healthcare Ethics* 8 (1999) 162.

⁶ Lex Doyle *et al.*, 'Why do preterm infants die in the 1990s?', *Medical Journal of Australia* 170 (1999) 528-532.

⁷ L W Doyle *et al.*, 'Changing mortality and causes of death in infants 23-27 weeks' gestational age', *Journal of Paediatric and Child Health* 35 (1999) 255-59.

⁸ Betty R Vohr and Michael Msall, 'Neuropsychological and Functional Outcomes of Very Low Birth Weight Infants', *Seminars in Perinatology. Outcomes of Low Birthweight Premature Infants* 21/3 (1997) 202-3.

⁹ A L Stewart *et al.*, 'Brain structure and neurocognitive and behavioural function in adolescents who were born very preterm', *Lancet* 353 (1999) 1653-56.

¹⁰ The Catholic Bishops' Joint Committee on Bioethical Issues, *Care of the Handicapped Newborn: Parental Responsibility and Medical Responsibility* (London: Catholic Media Office 1986) 4-5.

¹¹ John S Wyatt, 'Neonatal care: withholding or withdrawal of treatment in the newborn infant', *Baillière's Clinical Obstetrics & Gynaecology* 13/4 (1999) 505; David K Stevenson and Amnon Goldworth, 'Ethical Dilemmas in the Delivery Room', *Seminars in Perinatology. Ethical Issues in Perinatal Medicine* 22/3 (1998) 199-204.

¹² Kathy Kinlaw, 'The Changing Nature of Neonatal Ethics in Practice', *Clinics in Perinatology* 23/3 (1996) 426.

¹³ L T Singer *et al.*, 'Maternal psychological distress and parenting stress after the birth of a very low-birth-weight infant', *Journal of the American Medical Association* 281/9 (1999) 799-805; Pam Hefferman and Steve Heilig, 'Giving "Moral Distress" a Voice: Ethical Concerns among Neonatal Intensive Care Unit Personnel', *Cambridge Quarterly of Healthcare Ethics* 8 (1999) 173-78.

¹⁴ John Paul II, *Encyclical Letter Evangelium Vitae* (Vatican City: Libreria Editrice Vaticana, 1995) N. 65.

¹⁵ Stevenson and Goldworth, 'Ethical Dilemmas in the Delivery Room', 198-99.

¹⁶ C de Garis, *et al.*, 'Attitudes of Australian neonatal paediatricians to the treatment of extremely preterm infants', *Australian Paediatric Journal* 23 (1987) 223-226.

¹⁷ Joyce L Peabody and Gilbert I Martin, 'From How Small is Too Small to How Much is Too Much. Ethical Issues at the Limits of Neonatal Viability', *Clinics in Perinatology* 23/3 (1996) 481.

¹⁸ Muraskas *et al.*, 'Neonatal Viability in the 1990s: Held Hostage by Technology', 166; Victor Yu, *et al.*, 'Outcome of Infants at Less than 26 Weeks Gestation', *Current Topics in Neonatology No 1*, T N Hansen and N McIntosh eds., (London: W B Saunders, 1996) 70, 78.

¹⁹ Doyle *et al.*, 'Why do preterm infants die in the 1990s?', 529; Yu *et al.*, 'Outcome of Infants at Less than 26 Weeks Gestation', 70, 78. ❖

Norman Ford SDB

Caroline Chisholm Centre for Health Ethics

7th fl., 166 Gipps Street East Melbourne Vic 3002

Tel (03) 9270 2681 Fax (03) 9270 2682 email: ccche@mercy.com.au www.mercyhealth.net/chisholmhealthethics/

Copyright © Caroline Chisholm Centre for Health Ethics Inc. 2001

Subscription fees: Single \$25.00 + GST; 5 subs. \$80.00 + GST; 10 subs. \$120.00; + GST; Overseas [single] AUD\$35.00

Director/Editor:

*Rev. Norman Ford SDB STL PhD, Adjunct Professor, Australian Catholic University;
Lecturer, Catholic Theological College / Melbourne College of Divinity; Senior Honorary
Research Fellow, Monash University.*

Research Officers:

*Deirdre Fetherstonbaugh DipAppSc Renal Cert BA MA
Tracey Phelan BSc BA(Hons) MBioeth*

Administrative Assistant/Layout/Sub-editor: *Margaret Casey BTheol*