

BEST PRACTICE

37

AUGUST 2011

Whānau Ora

He tina ki runga, he tāmōre ki raro
Contentment above, firmly rooted below

A person with strong familial roots will be solid, dependable and healthy



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This magazine is printed on an environmentally responsible paper managed under the environmental management system ISO 14001, produced using Certified ECF pulp sourced from Certified Sustainable & Legally Harvested Forests.

We would like to acknowledge the following people for their guidance and expertise in developing this edition:

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Best Practice Journal (BPJ)

ISSN 1177-5645

BPJ, Issue 37, August 2011

BPJ is published and owned by bpac^{nz} Ltd
Level 8, 10 George Street, Dunedin, New Zealand.

Bpac^{nz} Ltd is an independent organisation that promotes health care interventions which meet patients' needs and are evidence based, cost effective and suitable for the New Zealand context.

We develop and distribute evidence based resources which describe, facilitate and help overcome the barriers to best practice.

Bpac^{nz} Ltd is currently funded through contracts with PHARMAC and DHBNZ.

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Whānau Ora: the theory and the practice

The Honourable Tariana Turia, Minister Responsible for Whānau Ora, introduces the concept of Whānau Ora and what this means for Māori, primary care and all New Zealanders. Twenty-five collectives, bringing together 158 providers across the country, have been selected to deliver Whānau Ora services. The ultimate concept of Whānau Ora is people and agencies working collaboratively to meet the health, social and educational needs of whānau. Profiles of providers help to explain how Whānau Ora works.

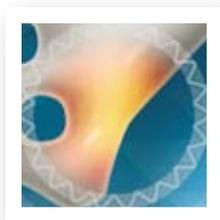
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Rheumatic fever in Māori: what can we do better?

In New Zealand, acute rheumatic fever is now almost exclusively a disease affecting Māori and Pacific peoples. The majority of cases are occurring in low socioeconomic communities in the northern and central North Island and in pockets around the Wellington region. Primary care clinicians need to know the risk of rheumatic fever in their community and to encourage at-risk people to seek a consultation when they have a sore throat. In high-risk areas, all Māori and Pacific children who present with a sore throat should have a throat swab taken and antibiotics prescribed empirically if any red flags are present.

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The medical management of gout revisited

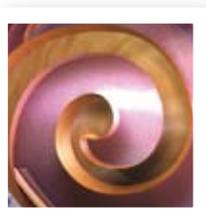
Gout has a significant impact on Māori in New Zealand. Management can be classified into three areas – treatment of an acute attack, treatment to prevent recurrent attacks and lifestyle advice for people with gout. NSAIDs are first-line treatment for an acute attack of gout. Allopurinol to lower urate levels is required for long-term treatment to prevent recurrent attacks. Aim for a target serum urate level of less than 0.36 mmol/L. Lifestyle modifications to prevent gout include; maintaining a healthy weight, moderate exercise and avoiding high purine foods such as shellfish and offal.

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Cardiovascular disease risk assessment: what are the PHO Performance Programme indicators and how are they best achieved?

The PHO Performance Programme is a quality improvement initiative which aims to improve health and reduce disparities among people using primary healthcare services in New Zealand. Practices can make simple changes in order to contribute towards their PHO meeting indicator targets, in turn improving health outcomes for their patients. The PHO performance indicator and target for cardiovascular disease risk assessment is for 80% of enrolled eligible patients to have their CVD risk assessed and recorded in their patient notes within the last five years. Eligible people include; Māori, Pacific and Indian subcontinent men aged 35–74 years and women aged 45–74 years; and for all other ethnicities – men aged 45–74 years and women aged 55–74 years. Risk assessment tools for calculating CVD risk can be integrated into the practice management system or used online.

Essentials

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Welcome to BPJ 37: “Whānau Ora”, our fourth journal focused on Māori health

E aku toa horopū, e aku mumu hauora.

Ko ngākau manahau tēnei e karanga atu, tēnei te mihi,
tēnei te mihi.

Ki a koutou kua huri tuarā mai ki te ao kikokiko nei, kua
haongia e te kupenga o Hine-nui-te-pō.

Nā koutou te huarahi i para, kia whakatauirā ai ki te hunga
ora te tū rangatira, te tū manukura.

Tēnei mātou e mihi nei, e mihi nā. Ko tātou anō te urupa
o rātou mā, tēnā tātou.

Kei te aro atu tēnei moheni ki te oranga o te whānau. Ki tō
te Māori whakaaro, he rite te whānau ki te pā harakeke, ko
te rito ko te kōhungahunga e noho ki waenga i ōna mātua.
E maimoatia ana te hunga pakupaku e ngā mātua, e ngā
tūpuna. Mēnā ka hutia te harakeke ka mate te tipuranga.

Kāore he ārikarika te owaha ki ērā o ngā matanga kua tuku
whakaaro kia tā ai tēnei pukapuka hei whakaarotanga, hei
matauranga mā tātou.

Ngā mihi, ngā mihi, ngā mihi

To my adept warriors, my valiant warriors in health.

The joyous heart calls out to you, greetings, greetings.

*To those who have turned away from the physical world,
who have been caught by the net of the Great woman of
the Night.*

*Those of you who trod the path before us to model to the
living world the attitude of a leader, the stand of a chief.*

*We acknowledge you here in the living world and in the
spirit world. We in the world of the living made in the image
of our ancestors, our greetings to you.*

*The main focus of this journal is the health of the family.
In a Māori worldview the family is likened to the flax plant.
The centre shoots are known as the young children and
sit between the parents. The young shoots are nurtured
and cared for by the parents and ancestors. If you pluck
the centre shoot the plant will die.*

*Our heartfelt thanks to those experts who have contributed
articles for this publication.*

Thank you

Hutia te rito o te harakeke
Kei hea te kōmako e kō?
Kī mai ki ahau
He aha te mea nui o te ao?
Māku e kī atu
He tangata, he tangata, he tangata

*If you pluck the centre shoot of the harakeke
From where will the bellbird sing?
If you ask me
What is the most important thing in the world?
I will say to you
It is people, it is people, it is people*

ACKNOWLEDGEMENT Thank you to **Dr Matire Harwood**, Clinical Director, Te Hononga O Tamaki Me Hoturoa, Auckland for expert guidance in developing the articles in this journal.

Meeting the needs of New Zealand children and young people who have been **abused** and **neglected**

Contributed by David Rankin, Senior Advisor, Child, Youth and Family

NEARLY ONE QUARTER OF NEW ZEALAND CHILDREN and young people come to the attention of Child, Youth and Family (CYF) before they reach age 16 years. Over half of the children who end up in CYF care are Māori.

The majority of these children are identified when they come to the attention of police through family violence incidents. Only 7% of the 124,921 notifications received in 2010 by CYF were from health professionals, and of these only 400 were made by General Practitioners. This suggests that these children are not presenting for or receiving the medical attention that they require and more needs to be done. Every contact with a caring professional must be seen as an opportunity to identify needs, advocate for solutions and monitor the child's progress towards effective social, educational and vocational engagement.

This group of very traumatised young New Zealanders generally have poor outcomes, yet the health system struggles to engage with them.

What is needed now is a radically different approach. Whānau Ora provides an opportunity to deliver a comprehensively different service – one that enables all agencies to work together to identify and address the complex needs of these children.

Child, Youth and Family have been invited to present a series of articles highlighting the issues this group of children pose for the health system and presenting some of the ways that their needs can be addressed.

This is the first article in the series and endeavours to outline the problems faced by this group of children and young people and the challenges for the health sector.

Abuse and neglect has a devastating impact on New Zealand children and young people. It also generates an extraordinary burden on the New Zealand economy. Children who have been abused and neglected have poor long-term outcomes, with increased rates of suicide, criminal conviction, unmet health needs and education support needs. Unfortunately, their circumstances often interfere with their ability to access health care.

The health system is primarily designed to respond to a patient's presenting problems, so is poorly structured to recognise or address the complex range of needs of these children and young people.

These children require an integrated comprehensive development plan that addresses their needs, including those of their parents or caregivers. The plan needs

to provide treatment options in the context of their environment and should encompass the contribution of primary care, social workers, teachers, specialists and community services. Responsibility for monitoring the outcomes must be agreed between the various agencies who are engaged with these children and their families.

Children known to Child, Youth and Family

Nearly one quarter of New Zealand children and young people come to the attention of Child, Youth and Family (CYF) during the first 16 years of their life.*

Last year CYF received 124,921 notifications. The majority of these notifications were raised by police as a consequence of family violence. Health practitioners generated 8,326 (7%) of these reports of concern, and of these only 400 were made by General Practitioners.†

Of those children who were the subject of notifications, 21,000 were found to have been maltreated, including 12,535 findings of emotional abuse, 4,403 cases of neglect, 2,886 findings of physical abuse and 1,201 cases of sexual abuse.

CYF determined that 3,178 children should be brought into the care of the Chief Executive, including children who required non-temporary care, respite care and emergency care.

Fifty-three percent of the children and young people in care are Māori.

Children in care have generally been exposed to repeated significant trauma. A recent survey of young people in the CYF residences‡ aged between 12 to 18 years, found that: 56% of boys and 26% of the girls had been hit three or more times in the previous year, 67% had parents with alcohol and other drug issues and 54% of the girls had a parent with a mental health condition.¹ Only half of the young people in the survey had breakfast – this compares with a survey of secondary school students in New Zealand which found that 90% of the young

Government devotes \$30 million for services to children in care

The 2011 Budget included close to \$30 million over four years for services to children in care. This investment in meeting the needs of these children comes at a time of extreme fiscal constraint and highlights the Government's commitment to addressing the needs of this group.

The funding will be used to provide Gateway Assessments of the health and education needs, of:

- All children who enter care (approximately 2,200 per year)
- Those children and young people in care who have significant health and behavioural problems (approximately 500 per year)
- Those considered to be at high risk when they present to a Family Group Conference (approximately 1,500 per year)

Additional mental health services for children that do not meet the criteria for access to specialist Child and Adolescent Mental Health Services (CAMHS) will also be funded. While the details of these mental health services have not been determined, they will include an expansion of the Intensive Clinical Support service and the development of a primary care based mental health service for children with emotional and behaviour problems.

* Child, Youth and Family has records of notifications for over 13,000 of the 56,000 individual children born in 1989.

† For a discussion on barriers to reporting child abuse by GPs see: Coles J. GPs and child abuse: recognition, responses and experiences in reporting child abuse. Monash University, Department of General Practice: 2010.

‡ CYF operates eight residences. Four are for young people involved in the Youth Justice system (146 beds) and four are for those with Care and Protection needs (60 beds).

people regularly had breakfast (Youth'07 Survey).² Only 54% of girls reported regularly having an evening meal (compared with 99.6% in the Youth'07 Survey).¹

Seventy-six percent had a regular general practice, but only 56% of the young people had a consistent General Practitioner and only 44% had seen a dentist in the previous year (compared with 79% of young people in the Youth'07 Survey).¹

A review of 100 files of children and young people who were approved for funding through the High and Complex Needs Unit found they had suffered a combination of: abuse and neglect (76%), parental separation (63%), multiple caregivers (53%), domestic violence (52%), parental mental illness (51%), multiple school placements (45%), parental alcohol and other drug issues (43%) and parental offending (24%).

A review of the health status of the mothers of the 400 children who came into care before their second birthday in the 2005 fiscal year showed 71% (of the mothers) had alcohol and other drug issues, 43% had mental health problems, 10% had intellectual disabilities and 25% had criminal convictions.³

The social and economic costs of children in care

The social costs of children and young people who have been in care are high and their outcomes are poor. While many demonstrate extraordinary resilience and achieve outcomes that are celebrated (at CYF's annual William Wallace Awards), many end up at considerable cost to the state. A 2006 study in Victoria, Australia calculated that children in care generate an additional lifetime cost of \$738,741 when compared to other children.⁴

The incidence of extremely high risk behaviours is higher in this population. Thirty percent of completed suicides in youth have been in people in the care of CYF and 50%[§] have been in young people known to the agency.⁵ A survey of young people in CYF residences found that 39% of girls

had tried to commit suicide in the previous year (compared with 7% in the Youth'07 Survey).¹

The survey also revealed that 92% of young people in care claimed they were sexually experienced (compared with 36% in the Youth'07 Survey) and 35% of boys and 18% of girls had ten or more sexual partners.¹ Twenty-one percent of girls reported that their first sexual experience was unwanted.¹ Similarly, a study from New South Wales, Australia looking at the outcomes of young women who transitioned out of care found that 37% were pregnant within 12 months of leaving care.⁶

Eighty percent of boys and 68% of the girls in the survey used cannabis (compared with 16% in the Youth'07 Survey).¹ Sixty-five percent of the young people had driven after drinking (compared to 8% in the Youth'07 Survey) and 38% never, or rarely, wore seat belts.¹

Thirty percent of children in care require education support.⁷ Australian statistics show that only 35% complete high school, compared with 80% in the general population.⁸

Twenty-nine percent of children who come to the attention of CYF end up with a corrections sentence – constituting 67% of the adult justice population.**

Health needs of children and young people in care

Exposure to repeated trauma and adverse life events creates significant health issues for children and young people in care.

Since 2009 CYF has run a pilot programme in four DHBs, with the Ministry of Health and the Ministry of Education, to assess the health and education needs of children

[§] Also confirmed through TWB research by Wellington School of Medicine 2010

** Data match undertaken by CYF between CYF and Justice in 2010

coming into care. This programme demonstrated 88% of these children have unmet health conditions, with 65% having an emotional or behavioural problem and 41% having a mental health disorder. Other conditions identified requiring treatment include: dental conditions (41%), hearing (37%), general development (13%) and vision (11%).

Mental disorders frequently identified within this group include: depression ($\leq 36\%$), anxiety disorder ($\leq 26\%$), conduct disorder (17-45%) and ADHD (10–30%).⁹

In a 2006 report from the Royal Australasian College of Physicians it was noted that there “is clear evidence from studies conducted in the United States and the United Kingdom that children entering care have a high prevalence of acute and chronic health problems and developmental disabilities, and subsequently have a broad range of health care needs.”¹⁰

Barriers to meeting the health needs

Unfortunately, while these children and young people have high health needs, systemic barriers exist for them accessing health services.

These children often lack an effective adult advocate to ensure their health problems are recognised and addressed. Their parents are likely to have a mental illness, drug or alcohol problems, an intellectual disability, transience or financial difficulties limiting their ability to ensure their children access the services they need. Furthermore, they may avoid medical treatment for fear that a regular medical practitioner would identify or suspect child abuse.

When offered an appointment, these children have a high “Did-Not-Attend” rate.^{††} This further complicates their engagement with health services. The Health and Education Assessment pilots have identified children who have been lost to follow-up after major health interventions including cardiac surgery, urological procedures, orthopaedic surgery or treatment for chromosomal anomalies.

Social workers are trained to focus on care and protection issues, but are increasingly looking at addressing issues that impact on wellbeing and longer term outcomes. Although they become the primary advocate for children brought into care, they do not have expertise to detect mental health disorders or developmental concerns and they often lack the shared language with their medical colleagues to facilitate access to the right health services.

Some effort has gone into strengthening interagency collaboration. For instance CYF and disability support have developed a range of protocols to establish shared responsibility for children in care who have significant disabilities.

Current primary care service delivery models are geared towards diagnosis and treatment of single presenting conditions. Funding, facilities and workforce constraints work against being able to comprehensively assess the needs of the child in the context of his or her family. Specialist child health services are poorly equipped to address the needs of children whose parents require parallel interventions. Little coordination exists between adult mental health and alcohol and other drug misuse services and child mental health, or between paediatric services and Child and Adolescent Mental Health Services (CAMHS).

Undertaking a holistic assessment of a child or young person with complex needs is time consuming. The Health and Education Assessment pilots have shown that collating existing health information and contacting parents and caregivers takes between six and eight hours. The health assessment takes an additional two to three hours, particularly when exploring developmental, emotional and behavioural issues. Such holistic assessment is made more complicated by the fact that medical records are scattered around multiple hospitals, outpatient centres,

^{††} Experience from the Health and Education Assessment pilots shows a DNA rate of up to 30% despite pre-contact and travel arrangements.

emergency departments, Accident and Medical Clinics and primary care providers.

Primary care has lacked the resources to recognise or treat mental illness in children. The limited capacity in CAMHS restricts treatment to those with the most severe conditions.

These children and their families often require complex evaluations from cross disciplinary teams including developmental paediatrics, child psychiatry, psychometrics, disability support, dental, vision and hearing services, adult mental health and drug and alcohol. Coordinating all these services in the context of poor attendance rates and transience can be extremely challenging.

Professional relationships in health are built around trust. This professional relationship becomes fraught if health practitioners consistently need to question whether the information given to them by families is correct or misrepresented.

Pockets of funding are dispersed among various agencies, for instance: CYF funds assessment and some treatment services, the Ministry of Health funds some mental health and contributes to primary care costs, the Ministry of Education provides special education services, ACC funds sexual abuse counselling and little funding exists for community based counselling services.

Even where funding exists the most appropriate service may not. Although health funds services such as CAMHS, it excludes services solely oriented to conduct disorder, sexual abuse or relationship issues – the very issues that affect so many of the children in care.

Designing a new approach

Children who come to the attention of CYF have the same right of access to health services as all children.

Effective intervention strategies recognise the needs of the child from as early an age as possible. The longer the needs are left unaddressed, particularly the mental health needs, the more complex the emotional and behavioural problems become and the more expensive, and potentially less effective, the intervention.

These children deserve an integrated child development plan that addresses all their needs and those of their parents or caregivers. It must address the care, education, health and support needs for the child and their caregiver. Such a plan should identify intervention options in the context of their community and articulate the role of the social worker, the teacher, primary care provider and specialist services. Responsibility for monitoring and reviewing plans needs to be agreed between agencies.

The needs of the child are interlinked with the needs of their parents and caregivers. Ignoring this may be counterproductive. Parent management training or specific skills in working with children and adolescents with emotional, developmental, intellectual or relationship disorders may be required.

Services need to focus on solutions, rather than problems. Making a diagnosis is only the first step.

The complex needs of these children and young people mean health practitioners cannot afford to take a narrowed approach to their care. Each contact should provide an



opportunity to look beyond the presenting complaint to explore underlying emotional and behavioural issues, development, parental health and mental health and care and protection issues.

Final thoughts

Children who grow up in an environment of repeated trauma or emotional chaos often struggle in their relationships with others, their education and their interaction with society. The estimated additional cost to the state of meeting the lifetime needs of children who have been maltreated to the extent that they are brought into the care of CYF is estimated at over \$750,000 per child.

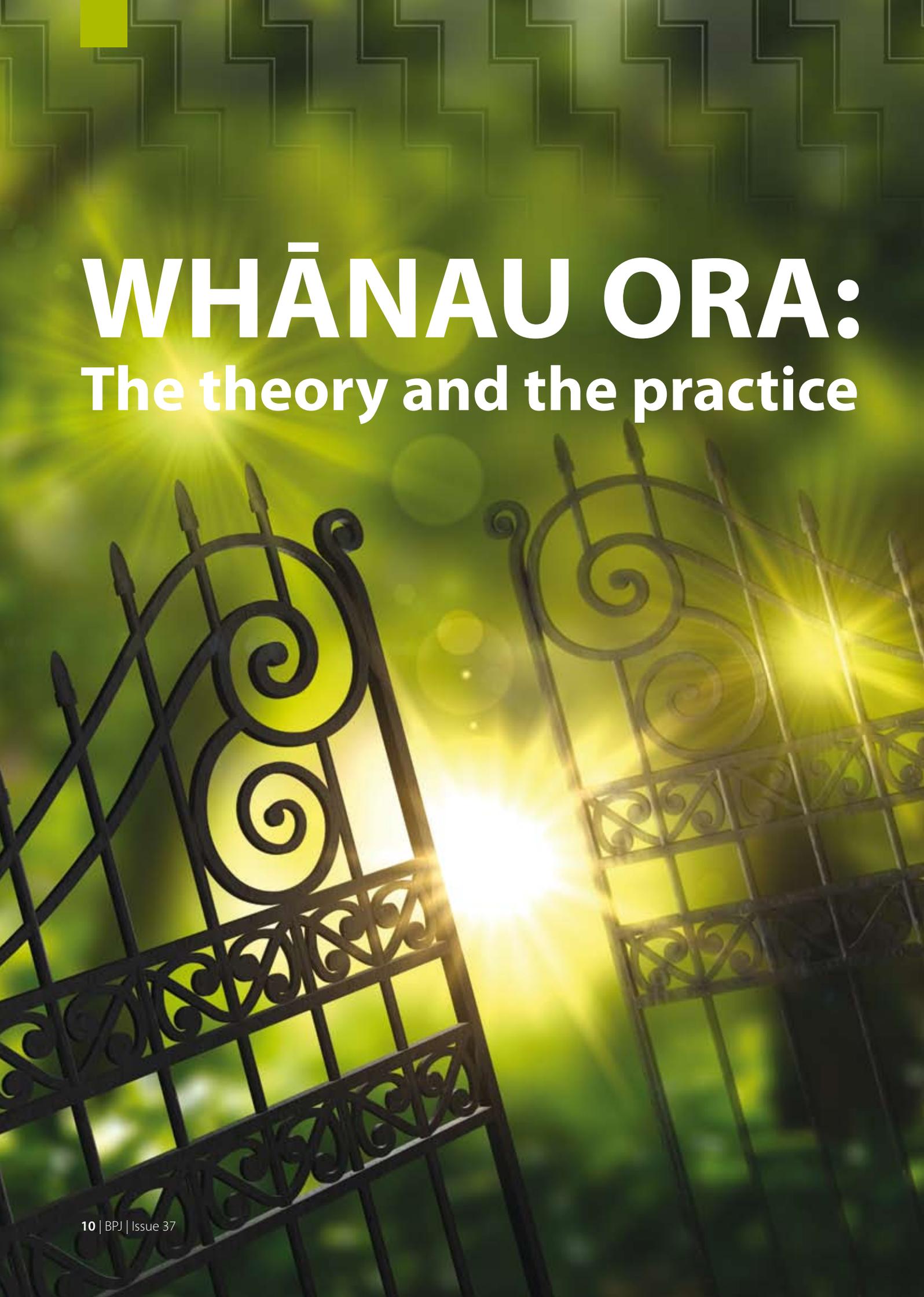
The health system, including primary care, is not designed to address the complex needs of these children. However, every contact with a caring professional must be seen as an opportunity to identify needs, advocate for solutions and monitor their progress towards effective social, educational and vocational engagement. If we fail to provide such a service, then we continue to create an extraordinarily (socially and economically) expensive population of young adults.

What is needed now is a radically different approach. Whānau Ora, Better Sooner More Convenient, and the Government's emphasis on agencies working together provides an opportunity to deliver a comprehensively different service – one that enables all agencies to work together to identify and address the complex needs of these children. To achieve this more sensible approach will require a massive cultural and service delivery change.

There is another way. We as New Zealanders need to invest in new ways to recognise and meet the needs of children who come to the attention of CYF.

References

1. McKay S, Bagshaw S. The health needs of young people in CYF residential care. The Collaborative for Research and Training in Youth Health and Development Trust. July 2009.
2. Youth'07 – The Second National Health and Wellbeing Survey of New Zealand Secondary School Students.
3. Connolly M, Wells P, Field, J. Working with vulnerable infants. *Social Work Now*: Dec 2007.
4. Forbes C. Measuring the cost of leaving care in Victoria. Department of Econometrics and Business Statistics. Monash University: August 2006.
5. Brown M. Care and protection is about adult behaviour. Report to the Minister of Social Services and Employment, 2000.
6. Cashmore J, Paxman M. Longitudinal study of wards leaving care. Social Policy Research Centre, University of NSW: January 1996.
7. Zetlin A, Weinberg L, Kimm C. Helping social workers address the educational needs of foster children. *Child Abuse & Neglect*, 29;2005.
8. Mondy L. A good education: a protective factor for children in out-of-home care. *Developing Practice: The Child Youth and Family Work Journal*, 5, 2003.
9. Cockburn G, Williment R. Improving access to (child and adolescent) mental health services. Project Report CYF report, June 2007.
10. Royal Australasian College of Physicians (RACP). Health of children in “out-of-home” care. Sydney: 2006.



WHĀNAU ORA:

The theory and the practice

Message from Minister Responsible for Whānau Ora – Hon Tariana Turia

If there is one thing that we have learnt out of the devastation, the suffering and the chaos associated with the Christchurch earthquakes, it has been to reacquaint ourselves with our neighbours, to come together as communities, and most of all, to reach within our families to find the greatest source of strength.

Whānau Ora is that source – a source of comfort, of motivation, of encouragement.

Whānau Ora is about whānau being empowered to develop a plan for our future; and to trust in our own solutions.

It is about restoring to ourselves, our confidence in our own capacity to provide for our own – to take collective responsibility to support those who need it most.

I believe that Whānau Ora represents a major transformation in the way services are designed and delivered, contracts arranged and the way providers work together.

Whānau Ora taskforce

It has been close to two years (June 2009) since Cabinet approved the establishment of the Whānau Ora Taskforce, chaired by Professor Sir Mason Durie.

The Taskforce held 22 regional hui with a range of urban and rural whānau, iwi and service providers during October and November 2009. Approximately 600 people attended these hui. The Taskforce also received more than 100 written submissions on its document, “Whānau Ora: A whānau-centred approach to Māori wellbeing”.

Government has appointed a Governance Group to oversee implementation of Whānau Ora. The Governance Group is



comprised of three community representatives and three agency Chief Executives.

Over the past year, I have watched Whānau Ora gain considerable momentum and I have been overwhelmed by the enthusiasm of stakeholders, whānau, communities, providers, practitioners, government departments and my own ministerial colleagues. What could be more inspiring than witnessing whānau being empowered to take control of their future?

Selection of Whānau Ora collectives

In October 2010, Government announced the selection of 25 Whānau Ora provider collectives, which between them bring together 158 providers across Aotearoa (including four Pacific providers in Auckland, Wellington and Christchurch).

It has been wonderful to see the high number of provider collectives which in itself expresses Government’s desire for providers to be more effective and efficient by working collaboratively.

I have heard it described as moving from “five cars up the driveway” to one car containing a navigator and four passengers. The shift in mindset is a shift from multiple agencies working with individual family members often in isolation of each other, to instead a bold and innovative approach which places the aspirations of whānau at the centre of service planning and delivery. Everyone is facing the same direction; the focus firmly fixed on outcomes.

For whānau – the outcomes we seek are that whānau will be:

- Self-managing
- Living healthy lifestyles
- Participating fully in society
- Confidently participating in Te Ao Māori
- Economically secure and successfully involved in wealth creation
- Cohesive, resilient and nurturing

Programmes of action

Provider collectives must therefore align all of their interactions to best support whānau wellbeing. Programmes of Action outline a planned approach by provider collectives to respond to whānau aspirations, and, where necessary, to provide whānau-centred services.

Officials from Te Puni Kōkiri, Ministry of Health and Ministry of Social Development are working with the Whānau Ora provider collectives to progress their Programmes of Action. These Programmes serve to inform the “business cases” that identify the resources required by provider collectives. They include a focus on relationship management, infrastructure, integrated contracting, workforce and practice development, monitoring and evaluation and action research.

Regional leadership groups

Alongside these collectives, there are ten Regional Leadership Groups which are championing Whānau Ora within their respective regions. Each Regional Leadership

Group comprises community representatives and officials from the three lead agencies. Their existence serves to remind us that local solutions are determined at the local level through collaboration and cooperation of whānau, hapū and iwi.

Integrated contracting

Central to the development of more holistic service delivery to whānau is the concept of integrated contracting. The Ministry of Social Development is currently leading work with 22 providers and their funders with the aim of having 20 signed integrated contract agreements this year.

Essentially, we envisage the transitioning of existing service delivery contracts into an integrated contract within the Whānau Ora framework. These outcomes-based integrated contracts will bring funding currently received from government funders together into a single contract.

Action research

I have always believed that Whānau Ora needed a framework to measure progress toward achieving outcomes for whānau. The last thing I would want is for bean-counting, silo by silo: how many meetings had; how many people served; how many booklets distributed. So Whānau Ora will be underpinned by a comprehensive research, evaluation and monitoring programme that will measure the success of the approach for whānau, for providers, and in terms of value gained for government investment. It is about outcomes that are influenced by the needs that whānau identify and choose.

Developing providers

In Budget 2011, Government invested another \$30 million in Whānau Ora. The emphasis of this new investment will go towards developing providers in regions of high need and where there are currently no provider collectives. These locations include; Kaipara, Hauraki, South Waikato, Taupō/Tūrangi, Palmerston North, Wairarapa, Levin/Kapiti Coast and Murihiku.

But if I was to be asked, I would say Whānau Ora is not about the funding. It is about all of us picking up on our responsibilities, rather than picking up the phone to ask the health provider or CYF to take up a role which is rightfully ours.

Whānau Ora is possibly the first time in which Government has been able to measure value for money against a cultural construct.

It is about our transformation; celebrating the power and potential of a whānau-centred approach which will enable our people to flourish.

Whānau Ora is the ultimate expression of our survival.

Tēnā tātou katoa.

How is Whānau Ora being delivered?

Te Whānau o Waipareira - Auckland

Te Whānau o Waipareira in west Auckland – part of the National Urban Māori Authority (NUMA) – has been operating a “Whānau Ora, Whānau Tahī” approach to service delivery since January 2011.

As a specialist Whānau Ora provider, Waipareira is offering families wrap-around services tailored to their needs. A kaiārahi, or navigator, will work with whānau to identify the aspirations and outcomes they seek, develop an outcomes focused plan to achieve them and then broker their access to a range of services available both internally and externally in the wider community.

More than 200 staff have taken part in training and developmental workshops focused on understanding outcomes, whānau-centred practice and understanding the requirements of privacy and confidentiality when working with whānau.

Waipareira has also opened a one-stop frontline Whānau Ora hub integrating health, social, justice and education services. The Whānau House – a four-storey complex in the central business district of Henderson – is the home of the trust’s new-look workforce: kaimahi (service workers), kaiārahi (navigators) and kaiwhakahaere (leaders).

NUMA is the parent body for the Whānau Ora provider collective that includes; Waipareira, Manukau Urban Māori Authority (South Auckland), Te Rūnanga o Kirikiriroa (Hamilton) with approved affiliate Te Kohao Health and Te Roopu Awhina ki Porirua (Wellington) which is in development.

The collective has an enrolled health population of 95,000 and provides whānau residing in the five main urban centres with nearly 300 individual services across education, health, housing, justice and social services. Services include public health; mental health; primary care; drug and alcohol addiction; Strengthening Families; Family Start; Parents as First Teachers (PAFT); breast screening; nutrition; smoking cessation; 24/7 accident and medical; ACC support; whānau housing; mentoring; holiday programmes; kaumātua support; child advocacy; restorative justice; violence prevention; funeral; housing initiatives; diabetes; Māori men’s health; budget advice; financial literacy; youth services; youth justice; social work support; day activities and life skills programmes for adolescents; and tikanga Māori.

 For more information about NUMA, visit: www.numa.org.nz.

Kōtahitanga – Whānau Ora inspired innovation

Kōtahitanga is a Whānau Ora collective of four Māori health and social service providers in South Auckland: Turuki Health Care Trust, Papakura Marae Trust, Huakina Development Trust and Te Kaha o Te Rangatahi Trust. The collective employs more than 285 staff and provides services to over 22,000 multi-ethnic whānau including 16,000 Māori.

Whānau Ora – A General Practitioners perspective

Dr Glenn Doherty is a General Practitioner and clinical director for specialist Whānau Ora provider Te Whānau o Waipareira in west Auckland. Affiliated to the East Coast tribe of Ngāti Porou, Dr Doherty has worked at the Wai Health Clinic – now known as the Whānau Centre Health Clinic – for the past three years. He has practised consistently as the only Māori male General Practitioner in west Auckland for the last 11 years and has been working in health management, policy and research and clinical medicine roles for the past 28 years. Dr Doherty has a special interest in adolescent and youth health and has been the school doctor at Kelston Boys and Henderson high schools in recent years. He is also on the Clinical Governance Board for the Waitemata PHO and a newly developed National Māori Health Advisory Council. He talks to Best Practice Journal about his work at the clinic.

What is the Whānau Centre Health Clinic?

“The new centre has been expanded to include more comprehensive services than before and in time, will be

operating under a ‘Whānau Ora, Whānau Tahī’ kaupapa. We have expanded to include a dental service and on-site pharmacist and are in the process of co-locating various Waitemata District Health Board services. We are also negotiating with a radiology service and will be co-locating WINZ, CYF and ACC within the centre. Visiting specialists and a birthing unit are also in the process of being developed.”

What does Whānau Ora mean to communities?

“Whānau Ora is about co-ordinating care on behalf of patients and ensuring care plans and Whānau Ora plans comprehensively address client needs. It is a whānau-centric model of service integration using a Māori kaupapa to improve all outcomes for our registered clients. Primary care practitioners will, over time, have centres in their neighbourhoods and communities like this one that matrix across sub-regions to provide services that may have been traditionally provided under and by mainstream services or providers.”

What are “wrap-around services”?

“Apart from primary and secondary health care services within the centre, we have a large amount of education, social services, justice and mental health services, which are known as wrap-around services. This means that whānau that access our services are looked at comprehensively – not just snapshots of care or contact. Over time, we will develop a referral triaging process, clinical and non-clinical, that ranks client priorities based on needs. Access and socio-economic issues will be taken into account and care plans and Whānau Ora plans will be developed around those needs. There will be a fostering of new models of service delivery that will focus around using Whānau Ora and Whānau Tahī models to add value to client outcomes. We will also be concurrently developing how we measure our performance to achieve improved outcomes for clients.”



How will General Practitioners be involved?

“The primary care strategy set the scene for ‘better, sooner, more convenient services’ so these Whānau Ora centres implicitly will be ‘one-stop shops’ with most services co-locating under one roof. This approach capitalises on critical mass and economies of scale in communities within the context of primary care. Ultimately, there should be Whānau Ora clauses in contracts with General Practitioners to ensure these principles are manifested in clinical pathways to these centres. In addition, General Practitioner Clinical Networks will be required to work closely with these centres and ensure they are meaningfully engaged and aligned with these centres.”

What other services does the Whānau Centre Health Clinic offer?

“In addition to core general practice and nursing services, the centre offers podiatry, midwifery and dietician services. We are about to employ a General Practitioner to run a chronic care clinic and we are looking at working with an endocrinologist to run virtual and on-site clinics for our difficult diabetic clients. We also have a family violence service, Māori mobile nursing services, cardiac rehabilitation services and oral health services integrated with the clinic. The centre offers a suite of ten services under the ‘Services to Improve Access’ contract. Finally, a Māori mirimiri service (traditional massage) is also being developed. Service navigators will also work to align and engage clients with appropriate and relevant services.”

What is your outlook for the future?

“This is an exciting time for this urban Māori authority in west Auckland, to provide services within the Whānau House and for staff working in the centre and for our community. Waipareira is the only service entity of its kind in New Zealand run and operated by Māori for all people wanting new approaches to their personal care and the care of their whānau.”

Kōtahitanga has developed a new whānau-centred model of practice, Mana Tiaki, to address the unmet needs of whānau. The model is applied across a network of providers and is evidence-based, outcomes-driven and strengths-focused. It is based upon the premise of supporting and enabling whānau-centric practice and can be applied to any whānau who chooses it, although it is not exclusive to Māori.

Mana Tiaki also enhances provider member capacity to deliver high quality services to whānau as it supports improved and coordinated access to a range of niche or specific services that are delivered by the network.

As with other Whānau Ora collectives, Kōtahitanga provides a range of health and social services across a continuum of care. The collective also provides innovation across areas such as te reo-based rangatahi services, specialist cultural needs assessment for kuia and kaumātua, wahine and pepi services that have world class accreditation, marae-based and integrated services, intersectoral service delivery, a mix of rural and urban services, iwi and mata waka networks and cultural competency systems.

Alliance Health+ Trust – a Whānau Ora Collective meeting the needs of Pacific peoples

Alliance Health+ Whānau Ora Collective represents six providers including: Auckpac, Bader Drive, Healthstar Pacific, Penina Health Trust, Southseas and Tongan Health Society.

For the past 20 years, members of this provider collective have customised services to meet the needs of Pacific peoples and high needs populations in Auckland. In doing so, the collective have long-established relationships with Pacific churches and community interest groups to ensure the voices of these groups are represented

In 2010, Alliance Health+ was established in response to the Ministry of Health policy – Better, Sooner, More Convenient Health Care in the Community – which resulted in the consolidation of three Pacific-led Primary

Turning to Whānau Ora in times of need

Renee Muru is the primary health care manager for Turuki Health Care in South Auckland – part of the Kōtahitanga provider collective.

Renee says that meeting people and home visits are a key part of their Whānau Ora service approach which aims to put a complete package of support around people's health and social needs.

“In simple terms, health problems are often closely related to things like housing, income, education, transport, employment, nutrition and smoking cessation,” she says.



“It's important to see the whole individual in the context of their whānau. By collaborating with other agencies we can address the factors that contribute to ill health, make a positive difference and get some great outcomes for whānau.”

As part of the Kōtahitanga collective, Turuki worked with more than 20 individuals who arrived in Auckland after the Christchurch earthquake in February.

As well as no food or accommodation, and no knowledge of local support systems, their social and health needs were varied. They underwent needs assessments driven by their own goals and aspirations with access to services across a network of providers.

Turuki helped the whānau in a number of ways, including; enrolling their children in schools, assessing immediate health needs as many came without vital medication, providing support with counselling services and helping to secure accommodation.

“A number of these clients have never been beneficiaries and using the services of WINZ and Housing New Zealand were very foreign to them,” says Renee.

“This work is ongoing and we are continuing to support a number of families with their short term, medium and long term goals.”

Health Organisations (PHOs): Ta Pasifika (Bader Drive and Southseas), Auckpac PHO and Tongan Health Society PHO.

Whānau Ora is a concept that strongly aligns with Pacific values and provides an exciting opportunity to enhance primary care. The inclusion of other Pacific non-government organisation (NGO) providers such as Healthstar Pacific and Penina Trust helps achieve the holistic outcomes for whānau.

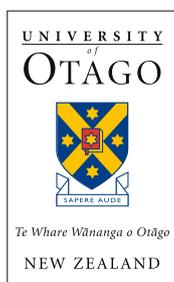
The collective has developed O Le Aiga mā le Fanau ia Ola Pacific framework for Whānau Ora which describes health and wellbeing in the context of relationships, social environments and the wider determinants of health. It takes a long-term perspective of building for future generations.

Alliance Health+ is focused on greater co-ordinated and

integrated care through the delivery of wrap-around services that meet the needs of the consumer and their family.

Within a year, Integrated Family Health Centres (IFHCs) will be a central hub in which some of the collective's model of care activities will occur. The centres will offer a range of services for whānau to easily access in one location across the health and social sector, and externally with key government agencies and NGOs.

Looking ahead, Alliance Health+ plans to continue to focus on key areas: structural change by strengthening the Alliance Health+ clinical governance programme; establishment of integrated family health centres and nurse-led clinics/networks; development of population health programmes for communities; Whānau Ora (enhanced primary care); and acute demand management.



Department of General Practice and Rural Health
Dunedin School of Medicine, University of Otago

Division of Health Sciences

Complementary Medicine – its place in primary care – GENX 826

Semester Two – 2011

Commences with the first residential in Dunedin on August 27 & 28 and finishes with a residential on November 26 & 27.

Study of this paper will equip GPs with the knowledge base to help their patients make informed health care choices in relation to complementary therapies.

STUDENTS WILL GAIN:

- An overview of non-conventional treatment options available in the primary healthcare sector and of reasons patients give for using them.
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- Understanding of the legal and regulatory environment for complementary practices in NZ.



For more information contact:

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Email: gp.postgrad@otago.ac.nz

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Building cultural competence: the Medical Council's direction

Contributed by Dr John Adams, Chair, Medical Council of New Zealand

“Cultural competence requires an awareness of cultural diversity and the ability to function effectively, and respectfully, when working with and treating people of different cultural backgrounds. Cultural competence means a doctor has the attitudes, skills and knowledge needed to achieve this.”

– Medical Council of New Zealand Statement on cultural competence

It is the New Zealand medical council's view that knowledge and abilities in matters of culture are a pre-requisite to good care. As a statutory function under the Health Practitioners Competence Assurance Act 2003, we are required to “set standards of...cultural competence...” We take this obligation seriously, and over the last few years have put in place several initiatives, which are still evolving. A part of the development has been to contract Mauri Ora Associates to help develop some excellent council resources, including:

- A statement on cultural competence
- A statement on best practices when providing care to Māori patients and their whānau

- A resource booklet “Best Health Outcomes for Māori: Practice implications”
- A resource booklet “Best Health Outcomes for Pacific Peoples: Practice implications”

These are just the skeleton of what we hope to achieve. As a next step we plan to work with professional colleges to institute standards of cultural competence in their training programmes and continuing professional development requirements. A recent Memorandum of Understanding signed with the Australian Medical Council will ensure that programmes in New Zealand Medical Schools and Australasian Colleges will now be measured against the Councils standards of cultural competence.

The starting point

The Council became involved with the subject of cultural competence in 1998 when we reviewed our policies and statements in light of the Treaty of Waitangi. Out of this, concerns were raised about whether we were handling complaints to the Council in an appropriate manner. Cultural competence training for Council staff was arranged and undertaken in 2000.

He rei ngā niho, he paraoa ngā kauae

To have a whale's tooth, you must have also a whale's jaw

(One must have the right qualifications for great enterprises)

Comments made by Professor Sir Mason Durie, sparked Council's interest in the idea of developing cultural competence standards for all doctors. Professor Durie suggested that cultural competence should be examined in terms of the positive outcomes it can generate for patients and as a tool for improving public health and safety.

Cultural differences can, and do, get in the way of good doctor-patient relationships and good communication. Discrepancies in health indices and access between our main cultural groups suggest that improved cultural knowledge among all doctors could have significant impact on the health of all New Zealanders.

What the statements say

Cultural competence

This document outlines the benefits of appreciating and understanding cultural issues in the doctor-patient relationship which include:

- Developing a trusting relationship
- Gaining patient information
- Improving communication
- Increasing patient satisfaction

The key message we want to give to doctors is that because culture impacts on care, doctors have to be aware of cultural diversity and learn to function effectively and respectfully when working with, and treating people, of different cultural backgrounds.

A doctor's culture and belief systems influence his or her interactions with patients and this may impact on the doctor-patient relationship:

“To enter into the patient's world and see the illness through that person's eyes is a difficult task requiring...the most crucial attribute of all – self knowledge. In this respect, the doctor is inevitably influenced by personal and cultural background and values, life experiences, beliefs and prejudices, educational and professional status, perception of the role of the physician and the individual, and the positive or negative feelings and emotional responses that the patient evokes.¹”

This is not just about Māori patients; this statement recognises that in New Zealand there is a diverse range of ethnic and cultural differences between doctors and their patients. We have many ethnic groups within our population and also other groupings that patients may identify with.

The document outlines the attitudes, awareness, knowledge and skills doctors require for working successfully with patients of different cultural backgrounds. These include:

- An awareness that cultural factors influence health and illness including disease prevalence and response to treatment
- A preparedness not to impose your own values on patients
- A willingness to appropriately challenge the cultural bias of individual colleagues or systemic bias within health care services where this will have a negative impact on patients
- An awareness that general cultural information may not apply to specific patients and that individual patients should not be thought of as stereotypes
- The ability to work with the patient's cultural beliefs, values and practices in developing a relevant management plan.

Statement on best practices in providing care to Māori patients and their whānau

This document outlines the attitudes, awareness, knowledge and skills relevant to doctors in their dealings with Māori patients and their whānau. It provides practical guidance to doctors to enable them and their Māori patients to achieve the best possible outcomes.

Like the statement on cultural competence, this document also addresses the benefits of appreciating and understanding cultural issues in the doctor-patient relationship – and specifically from a Māori patient and whānau perspective.

The statement outlines areas where cultural differences may arise and cause confusion or misunderstanding with a Māori patient and their whānau:

- Interpreting and sending non-verbal signals
- Methods of expressing agreement and disagreement
- Communicating medical information
- Presence and inclusion of family members in medical settings
- The use of karakia

It is noted that the ability to ask patients about their ethnic background demonstrates not only respect for the patient's individual heritage, but provides an opportunity to discuss their cultural preferences.

The four key elements to cultural competence when treating a Māori patient and their whānau are:

Attitudes

A culturally competent doctor should be open to trying to engage and learn; be prepared to ask patients about their preferences and follow their lead; and will attempt to enter into, and understand, the patient's world.

Awareness

A culturally competent doctor should also be aware of

potential judgements and prejudices based on skin colour and appearance; be aware of Māori cultural expectations around consultations and personal interaction; and be aware of the importance of pronunciation (and when in doubt, ask the patient for help).

Knowledge

A culturally competent doctor will be aware of Māori history, have some knowledge and a respect of Māori culture.

Skills

The skills that a culturally competent doctor should have include; the ability to ask about the patient's background and heritage; the ability to involve whānau; the ability to ensure that the patient understands what is being planned; and the ability to seek advice and the capacity to develop the connections through which this can happen.

Best health outcomes for Māori: Practice implications

Where the "Statement on best practices" sets the standards expected by the Council, the "Best health outcomes" resource expands on this with a focus on practice implications.

To quote from this resource:

"Just like people of other cultures, Māori place great emphasis on establishing a trusting relationship with their health care providers. Client satisfaction and acceptability of treatment reflect the ability of providers to show they understand their patients and are understood by their patients. Improving providers' knowledge of Māori traditions will increase their cultural competence thus helping them to communicate more effectively with their Māori patients. This in turn will reduce patient delays in seeking care, improve the collection of clinical information, increase the understanding of Māori clients and enhance communications between Māori clients and providers. Together these can lead to improved patient/family/whānau satisfaction and greater compliance with individual care plans."

Best Health Outcomes for Pacific Peoples: Practice implications

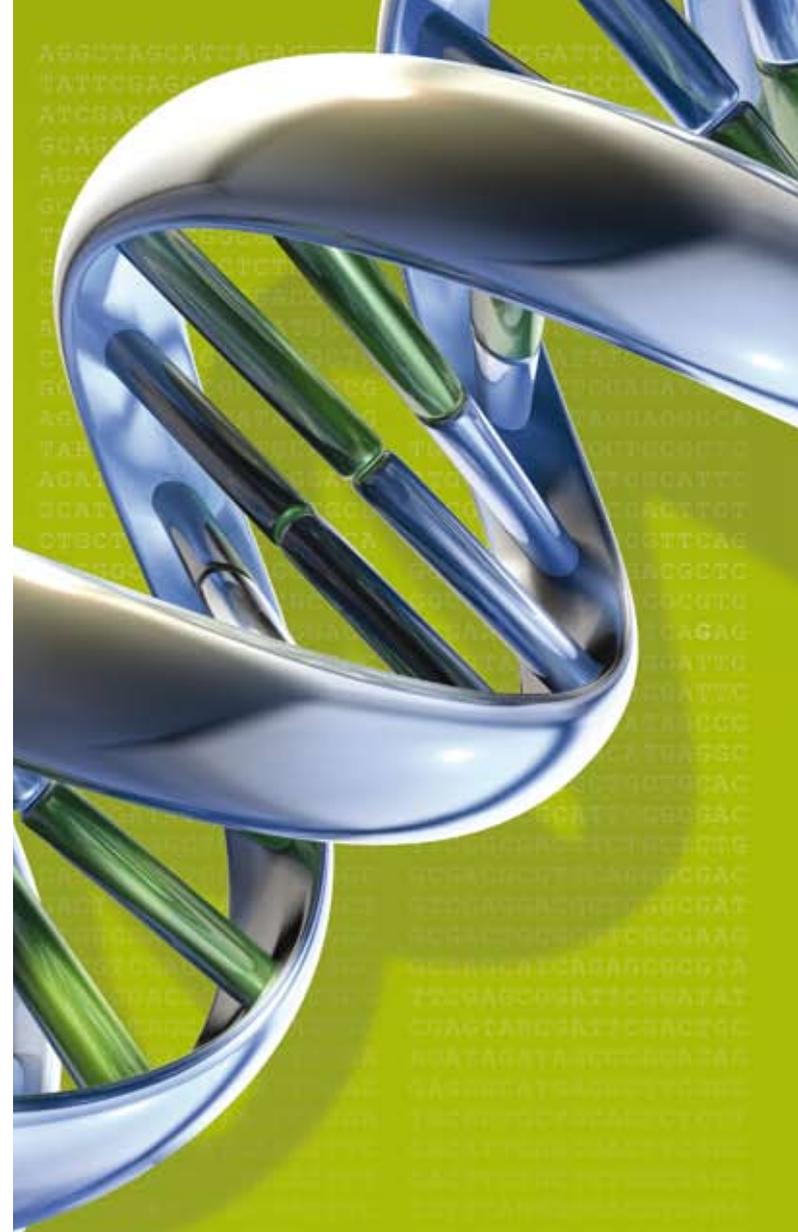
This booklet offers guidance on the cultural diversity of and cultural preferences for Pacific peoples in New Zealand. The description of Pacific culture in this booklet is necessarily generalised because there are at least 22 separate Pacific nations, each with its own culture and history.

New Zealand has a rich cultural heritage and an increasingly wonderful mixture of different cultures in its population. As a profession, we owe our Tangata Whenua and that diverse population the best care possible. There is an obligation on all doctors to understand their patients' backgrounds and contexts, and have appropriate awareness, attitudes, knowledge and skills in relation to different cultures. Things that may seem quite simple such as learning Māori pronunciation can make big differences. We also urge our Māori doctors, and others of all cultures, to continue to be involved in helping all doctors understand the unique needs and ways of your populations. Better understanding breeds better communication which we know means better care.

 Copies of all the resources referred to in this article are available on the Council's website at: www.mcnz.org.nz

Reference

1. Maoz B, Rabinowitz S, Hers M, Katz HE (Eds). Doctors and their feelings: a pharmacology of medical caring. Westport, Conn; Praeger: 1992.



“The capacity to blunder slightly is the real marvel of DNA. Without this special attribute, we would still be anaerobic bacteria and there would be no music.” — Lewis Thomas

Improve patient safety by sharing solutions and prevent these incidents from occurring again. Report patient safety incidents here:

www.bpac.org.nz/safety

Rheumatic Fever in Māori:

WHAT CAN WE DO BETTER?

Whaia te iti kahurangi – Ki te tuohu koe, me he maunga teitei, ko Aoraki anake

Pursue excellence – should you stumble, let it be to a lofty mountain

Key concepts

- In New Zealand, acute rheumatic fever is now almost exclusively a disease affecting Māori and Pacific peoples
- People who have had acute rheumatic fever require secondary prophylaxis for at least ten years to reduce the risk of developing chronic rheumatic heart disease
- Cases of acute rheumatic fever, rheumatic heart disease and the number of deaths due to chronic rheumatic heart disease are increasing in New Zealand
- Primary care clinicians need to know the risk of rheumatic fever in their community and to encourage at-risk people to seek a consultation when they have a sore throat
- In high-risk areas, all Māori and Pacific children who present with a sore throat should have a throat swab taken and antibiotics prescribed empirically if any red flags are present

Things are getting worse, not better...

The rate of Acute Rheumatic Fever (ARF) in New Zealand is increasing. Between 2005 and 2010, the rate of ARF doubled from 1.9 reported cases per 100 000 population to 3.8 per 100 000 (Figure 1).¹ The majority of cases are occurring in low socioeconomic communities in the northern and central North Island and in pockets around the Wellington region. ARF is 23 times more likely in Māori and nearly 50 times more likely in Pacific peoples than in other ethnic groups.² From 1996 to 2005, while ARF rates significantly decreased amongst New Zealand Europeans, rates amongst Māori and Pacific children increased significantly. Although comprising just 4.7% of the New Zealand population, this group represented almost 60% of all cases reported.³ It is widely believed that this over representation is due to a combination of overcrowded living conditions, poverty and decreased access to treatment options.

Other than New Zealand, and indigenous populations in Australia and the Pacific Islands, ARF is a disease of the developing world. What primary health care services in New Zealand can do is to:

1. Understand there is a problem
2. Be aware of the New Zealand guidelines and algorithms for the management of ARF
3. Assist in raising community awareness, and support early detection programmes in high-risk areas
4. Continue to lobby for improvements and equality in socioeconomic factors

What is acute rheumatic fever?

Acute rheumatic fever is an autoimmune response to a group A streptococcus (GAS) infection, usually in the upper respiratory tract. The resulting transitory, generalised, inflammatory response may affect the heart, joints, central nervous system and skin. The chief concern

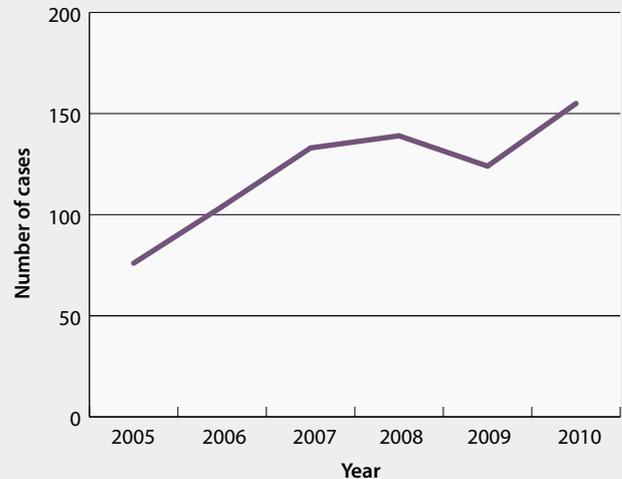


Figure 1: The number of reported cases of ARF in New Zealand (2005-2010)⁴

is the inflammation of the heart (carditis), as this may cause cardiac valve stenosis. ARF has no known genetic basis and occurs mainly in children aged five to 14 years, peaking around age eight. ARF is rare in children aged under three years, as the immune system has not developed sufficiently to allow an autoimmune response to occur.⁴

In New Zealand, ARF has been a notifiable disease since 1986. Despite this, it is likely that there are significantly more cases of ARF in New Zealand than are currently being reported to health services. A 2008 review of ARF cases (1999–2007) in the Bay of Plenty and Lakes Districts DHBs found 147 cases, where only 75 had been previously reported.⁵ Factors identified as contributing to under reporting by health professionals included; difficulty of ARF diagnosis, multiple health professionals being involved at multiple institutions and health professionals being unfamiliar with reporting requirements due to a lack of experience with ARF or as a result of being trained overseas. It is also likely that some patients will not present unless the symptoms are severe.

Sore throats mean different things in different places

Rates of ARF vary throughout New Zealand. It is important that primary care clinicians know the approximate rate of ARF in their communities (Figure 2).

Practices in northern and central North Island and Porirua should be on high-alert for ARF and the group A streptococcus (GAS) throat infections that cause it. Māori and Pacific peoples have higher rates of GAS infections than New Zealand Europeans.⁶ However, awareness at a national level is required given the high degree of mobility amongst the young adult population.

Overcrowding, economic deprivation and decreased treatment opportunities also increase the risk of a person developing ARF.⁷ When a patient presents with a sore throat, assessing these factors during consultation indicates the risk that person may have of developing ARF.

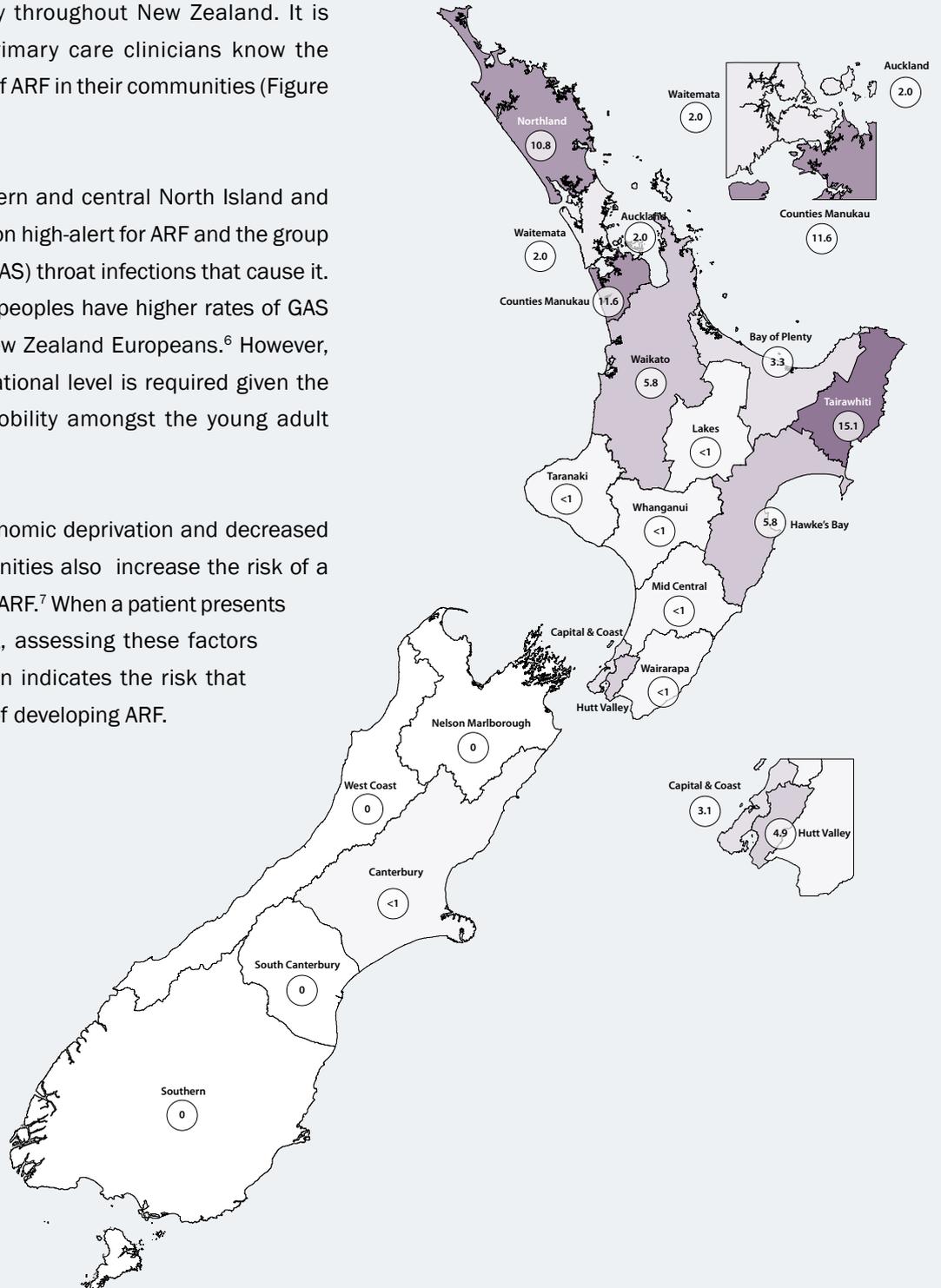


Figure 2: Annual rate of rheumatic fever first admissions by DHB in New Zealand (2010) per 100 000 population¹

Rheumatic heart disease is a long-term consequence of acute rheumatic fever

Over 60% of people with ARF will have long-term heart damage, termed chronic rheumatic heart disease (RHD), if left untreated.⁸ RHD can cause complications later in life, particularly in a person's 30s and 40s. Approximately 145 people in New Zealand die each year from RHD.⁹⁻¹¹

People who have RHD have a higher risk of developing infective endocarditis and need to maintain good oral hygiene and attend regular dental check-ups. Dentists and other health professionals need to know if a patient has RHD, as it increases the risk of infection. Patients who have been identified as being at risk are given wallet cards (see Appendix H of Heart Foundation guidelines⁴) to present to health professionals. These cards contain recommended doses of additional antibiotics that may be required for various procedures, e.g. dental procedures involving bleeding of gingival tissues.

Think differently about sore throats

Most sore throats are viral in origin, but approximately 10% of sore throats in adults and 15–30% of sore throats in children are due to GAS infections.⁵ GAS is droplet spread with a cross-infection rate of 19–50% within a household.¹²

Treatment of GAS sore throats with penicillin V (phenoxymethylpenicillin) or amoxicillin is considered the first-line treatment for preventing ARF.¹³ Note that this is an update to the National Heart Foundation sore throat guidelines, which recommend penicillin V as first-line treatment and amoxicillin as second-line.¹⁴ Amoxicillin is more palatable and may be taken with food, which may encourage increased compliance with treatment, compared to penicillin V.

Antibiotics, as outlined in Table 1, should be prescribed to patients for the first or second instance of GAS sore

Table 1: Recommended treatment for GAS positive sore throats (Algorithm 4 - Guide for sore throat management, National Heart Foundation, 2006, Lennon D et al, 2011)^{13, 14}

Antibiotic	Route	Regimen	Duration
First choice			
Penicillin V	Oral (on empty stomach)	Children: 20 mg/kg per day in two to three divided doses. Maximum 500 mg, three times daily Adults: 500 mg, twice daily	10 days
Amoxicillin	Oral	Weight <30 kg: 750 mg, once daily Weight >30 kg: 1500 mg, once daily	10 days
Alternatives			
Erythromycin ethyl succinate (EES) if documented allergy to penicillin	Oral	Children: 40 mg/kg/day in two to four divided doses, to a maximum of 1 g/day Adults: 400 mg, twice daily	10 days
Benzathine penicillin G (BPG) if compliance with 10 day regimen an issue	IM	Weight <20 kg: 600 000 U once Weight >20 kg: 1 200 000 U once	Single dose

throat in a three month period. Other recommendations are provided for recurrent cases of GAS infection (see sore throat algorithm, Heart Foundation guidelines).¹⁴

Some General Practitioners may be reluctant to prescribe antibiotics empirically due to messages about the “Wise Use of Antibiotics”, which have reduced antibiotic use and patient’s expectations for receiving them for colds and sore throats during winter months. It is important that practices understand that wise use means carefully selecting patients who might benefit from antibiotics, rather than avoiding prescribing completely. In most cases, ARF can be prevented if antibiotics are taken within nine days of onset of symptoms.

Throat swabs

Culture of a throat swab is the best way to confirm a GAS infection. Running a standard, sterile microbiological swab over the tonsils, back of the throat and any area with exudate, while avoiding the tongue and teeth, ensures a good sample is collected. When possible the sample should be sent for culture within two hours, however a delay of up to twenty four hours is acceptable.

Red flags for a potential GAS throat infection are:

- Temperature > 38 degrees celsius
- No cough or coryza (which may suggest a viral cause)
- Swollen anterior cervical lymph nodes
- Tonsillar swelling or exudate

In high-risk areas, all Māori and Pacific people aged between three and 45 years, who present with a sore throat, should have a throat swab taken. Prescribe antibiotics empirically if a sore throat and any red flags are present. If patients later return a positive GAS culture, then prescribe antibiotics if they are not already taking them.

Swabbing and treatment of entire households should occur if more than three cases of GAS sore throat occur in the same home within a three month period. The New

Zealand algorithm for sore throat management also provides guidance for managing households and whānau in high-risk areas.

 A New Zealand algorithm for the management of sore throats is available from the Heart Foundation website (listed at end of article).

There is more that can be done in high-risk areas

- Raising community awareness is an important tool in combating GAS infections
- When people from high-risk groups present with sore throats, validate their attendance as this helps to reinforce good behaviour patterns
- Repeat the message – “sore throats matter” – to parents, Kaumātua, teachers, community pharmacists, Kohanga Reo, and other influential community members
- Put up posters in practices – the National Heart Foundation website has resources available in Māori, Samoan and Tongan languages

New Zealand guidelines recommend raising community awareness and implementing early detection and treatment of GAS sore throats when annualised ARF rates exceed 20 per 100 000. If possible, school-based sore throat programmes should be implemented by Public Health Units when rates exceed 50 per 100 000.¹²

 **Best Practice tip:** To find out the incidence of ARF in a specific area, contact the Medical Officer of Health at your local Public Health Unit.

Diagnosing acute rheumatic fever

There is currently no diagnostic test for ARF so clinical judgement is important. New Zealand guidelines for the diagnosis of ARF are based on the Jones criteria and are available from the Heart Foundation website (listed at end of article).

The presence of two major symptoms, or one major and two minor symptoms, in both cases with a prior GAS infection, are required to diagnose ARF.

Major symptoms include:

- Arthritis, the most common symptom, occurs in 75% of first attacks, usually in the larger joints such as the knees and ankles⁶
- Carditis almost always affects the mitral and aortic valves and on presentation, a murmur may be heard.⁶ In New Zealand, subclinical carditis confirmed by echocardiography is also considered a major symptom.
- Chorea (uncoordinated movements), often in adolescent females, especially affecting the hands, feet, tongue and face which disappear during sleep and may only affect one side of the body. Chorea may occur following a prolonged latency after streptococcus infection and generally resolves within six weeks.
- Erythema marginatum – rare (pink rings on the trunk and limbs)
- Subcutaneous nodules – rare, but highly specific to ARF

Minor symptoms include:

- Fever which accompanies most cases of ARF, except when chorea is present

- Joint pain
- Elevated CRP >30 mg/L or ESR >50 mm/h
- A prolonged P-R interval on ECG

Antistreptolysin O titre is used to confirm the diagnosis, as less than 10% of people with ARF have GAS positive throat swabs. Assuming no re-infection, antibody levels return to normal in six to 12 months.

All patients with suspected ARF should be referred to hospital for confirmation of the diagnosis. Hospitalisation also provides an opportunity to educate whānau about the condition and the importance of preventing recurrent attacks.

Recurrent acute rheumatic fever

Recurrent rheumatic fever occurs when people who have previously had ARF are re-infected with GAS. Recurrent attacks greatly increase the chance of a person developing RHD. Secondary prophylaxis reduces the incidence of recurrent ARF. However, it is of major concern that the mortality rate in New Zealand due to RHD is increasing.^{10,15}

Māori and Pacific people have the highest recurrence rates of rheumatic fever. In Auckland, between the 1980s and 1999, recurrence rates dropped from 22% to 5.5%,

Rheumatic fever registers

Rheumatic fever registers are an important tool for managing patient compliance to secondary prophylaxis, particularly when people move. Registers are also necessary for analysing epidemiology and channelling financial resources into regions with the greatest need. The Auckland rheumatic fever register was established in 1981 to streamline antibiotic

delivery to patients. The subsequent clinic-based prophylaxis programme saw recurrent rheumatic fever attacks fall from 20% of total hospital admissions for rheumatic fever to 6%.¹⁸ Further, widespread reductions would be likely if a national rheumatic fever register was established.

Eradication of rheumatic fever

On 26 April 2011, a group of 40 health professionals from areas of high prevalence for rheumatic fever met to discuss a pathway to achieve eradication of the disease. The National Steering Group and the Ministry of Health are now working closely to achieve this goal.

Presentations from Professor Diana Lennon, Dr Pat Tuohy and representatives from high risk areas outlined the cross-sectoral approach to managing rheumatic fever, including what has worked and what has not. Workshop groups then discussed health promotion, the role of primary care, monitoring progress and integration with other childhood illness.

An over-arching theme was the need to bring all initiatives and knowledge together to ensure cohesion, quality processes and success.

Key recommendations from the workshops included:

- Community based and whānau centred approaches with appropriate consultation are required for successful health promotion and community awareness
- Nurse management of sore throat is an effective means of assuring accessible and affordable care in high risk areas. Flaxmere, Kaikohe and Porirua provide current best practice examples. A “walk in” basis is important with no financial barriers, with training supported by PHOs as part of existing continuing medical education (CME).
- Ensure parents know that prescriptions for children aged under six years are free of charge (or for those with a prescription subsidy card, Community Services card or High User Health card).
- Increase awareness of the importance of

completing the ten day antibiotic course.

Amoxicillin once daily is a good option for increasing compliance (compared to penicillin V which needs to be given two to three times daily on an empty stomach).

- For standardised care, IT support should be available in all practices with prompts for sore throat management. Local adaptation and simplification of guidelines in high risk areas such as Porirua can work well.
- Sore throat management should be audited as part of continuous quality improvement in primary care in high risk areas
- Nurses and other health workers could be used to broaden access to throat swabbing in high prevalence areas (in schools and other community settings), with appropriate linkage back into primary care for management

Following the seminar, the current management algorithms from the Heart Foundation guidelines are being reviewed and an agreed evidence-based approach to school and community clinics developed. The recent budget allocation of \$12 million to assist eradication highlights the importance of rheumatic fever as a now recognised marker of child health. Minister Tariana Turia’s championing and support for this successful bid and for raising the profile of rheumatic fever should be acknowledged. The current convergence of interest around this challenging issue allows guarded optimism that eradication can indeed be achieved. A follow-up seminar is planned for the end of the year.

Contributed by **Professor Norman Sharpe**, Medical Director of the National Heart Foundation of New Zealand and acting Chair of the National Steering Group.

but in 1999, all reported recurrent cases of rheumatic fever occurred in Māori or Pacific peoples.¹⁶ In 2008, 10% of all cases of ARF in the Bay of Plenty and Lakes District DHBs were recurrences.

After contracting ARF, prevention of recurrent rheumatic fever requires intra-muscular injections of benzathine penicillin G (BPG) every four weeks for a minimum of ten years. This has been shown to be safe and effective when delivered by community nursing staff in schools, workplaces or homes.¹⁷ Secondary prophylaxis also reduces the impact of RHD, and has been shown to be associated with a reduction in heart disease of 50–70% and decreased mortality.⁴

When intramuscular injections are not possible, oral penicillin V (250 mg, twice daily) can be prescribed. In cases of penicillin sensitivity, oral erythromycin (children 40 mg/kg/day in two to four divided doses, adolescents and adults 400 mg, twice daily) is the treatment recommended by the National Heart Foundation.⁴

Patients receiving prophylactic treatment should only stop receiving BPG injections following specialist consultation.

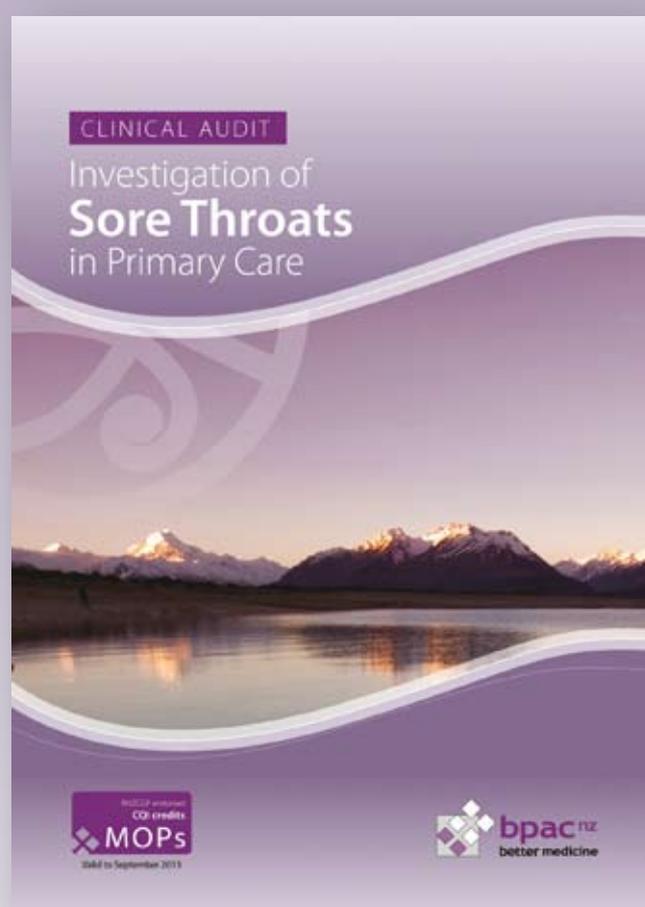
Further resources

New Zealand guidelines and educational materials are available from the National Heart Foundation website:

- Algorithm for sore throat management: www.heartfoundation.org.nz (key word “sore throat”)
- Educational material for patients and whānau: www.heartfoundation.org.nz (key word “rheumatic fever”)
- Guidelines for Rheumatic fever and Jones criteria for ARF diagnosis: www.heartfoundation.org.nz (key word “rheumatic fever diagnosis”)

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Community success stories

There is significant evidence that community driven detection and treatment strategies do reduce ARF. A 2009 meta-analysis assessed the effectiveness of community/school based sore throat intervention programmes in Auckland, Hawaii, the United States and Cuba, and found, that on average, they reduced rates of ARF by 60%.¹⁹

In recent years, there have been several school-based initiatives in New Zealand. In the Northland community of Kaeo, Whangaroa, pre-intervention rates of ARF in children aged five to 14 years were 424 per 100 000. In the eight years following the intervention programme, which started in 2002, there have been no reported cases of ARF.

 For further information see: “Why we still need to think of rheumatic fever”, BPJ 13 (May, 2008).

The success of the Whangaroa programme has resulted in the launch of other school-based programmes. In October 2009 a similar project was launched in Opotiki.

Details of the Opotiki programme included:

- Contacting GPs before the launch to gain support and provide guidance
- Swabbing children with sore throats three times a week to ensure no more than nine days passed between onset and treatment
- Referral of all children with positive cultures to a medical centre

- Oral antibiotics for ten days for all GAS positive students
- Raising specific community awareness of the link between sore throats and ARF

For several weeks in October 2009, when the programme started, 20% of all children with sore throats tested positive for GAS. By December 2009 the rate had dropped to 11% and further decreased to 3% by December 2010. Identical programmes have been launched in Kawarau (February 2011) and Murupara (May 2011).

Whānau Ora - Community solutions for community problems

In another example of forward thinking, the Mangere Community Health Trust PHO is overseeing the introduction of instant, on-the-spot, GAS testing at Makaurau Marae, Mangere. Trust Chair, Dr Michael Lamont explains:

“A major reason why some communities have high rates of ARF is that the chain of events from sore throat to antibiotic administration is much too long. The chain can be broken at any point, resulting in the child missing treatment.

Our solution is to do ‘near patient testing’ in the community and to make swabbing a simple and easy choice. The old saying – make the decision the easiest and simplest thing to do!

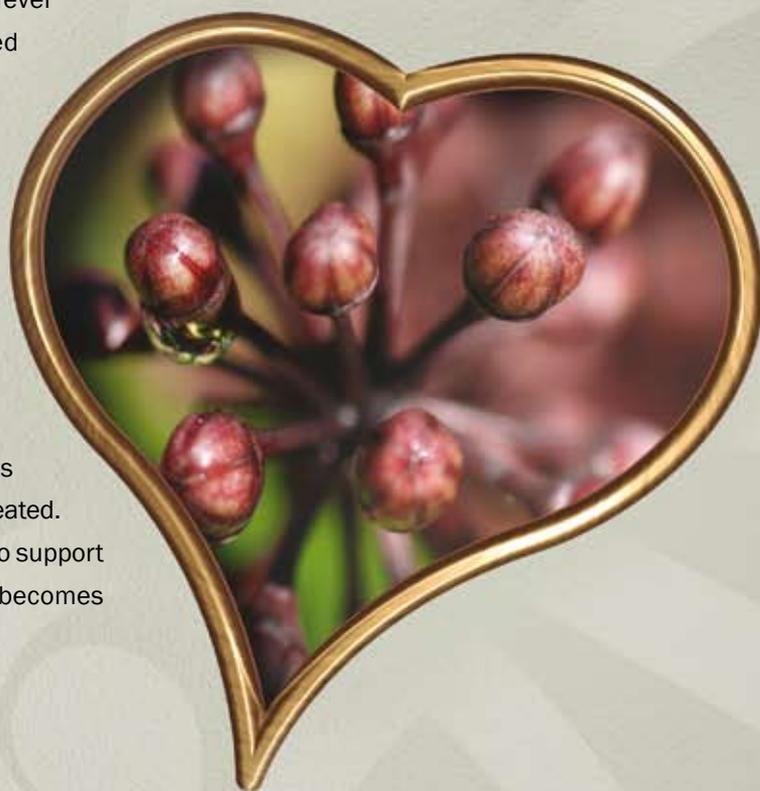
The GAS throat swab we have imported is 100% sensitive and 100% specific.²⁰ It will be used on a marae in Mangere where many of the Kuia are on their second set of heart valves.”

 Examples of the media campaigns can be seen at: www.toiteorapublichealth.govt.nz/sitesearch/?k=rheumatic+fever.

Sore throats break hearts

Community programmes are not just about swabbing children’s throats. Increasing community understanding of the link between GAS sore throats and ARF is also a key component of their success. In Bay of Plenty, a multi-media campaign was launched with locally-affected children fronting local campaigns. Press releases, advertorials and commissioned articles appeared in newspapers, radio adverts were aired on eight stations, newsletters distributed at schools and a rheumatic fever website created. Rheumatic fever presentations for local GPs were also conducted at CME sessions. In larger metropolitan areas, or in sparsely populated regions where school-based projects are impractical, this raising of specific community awareness assumes even greater significance.

In the 2011 Budget the Government announced an additional \$12 million in funding allocated to combating ARF. It is anticipated that more school-based programmes and supporting multi-media campaigns will be created. GPs in high to medium risk areas may be asked to support such programmes as this increased funding becomes available.



ACKNOWLEDGEMENT Thank you to **Professor Norman Sharpe**, Director, National Heart Foundation and **Dr Jim Miller**, Medical Officer of Health and **Lindsay Lowe**, Communicable Disease Nurse, Toi Te Ora Public Health Service, Bay of Plenty DHB for expert guidance in developing this article.

References

1. Public Health Surveillance. Annual Surveillance Summary. Ministry of Health, 2011. Available from: www.surv.esr.cri.nz/surveillance/annual_surveillance.php (Accessed Jul, 2011).
2. Hale M, Sharpe N. Persistent rheumatic fever in New Zealand - a shameful indicator of child health. *N Z Med J* 2011;124(1329):6-8.
3. Jaine R, Baker M, Venugopal K. Epidemiology of acute rheumatic fever in New Zealand 1995-2005. *J Paediatric Child Health* 2008;44:564-71.
4. The National Heart Foundation of New Zealand. New Zealand guidelines for rheumatic fever: 1 Diagnosis, management and secondary prevention. Heart Foundation, 2006. Available from: www.heartfoundation.org.nz (Accessed Jul, 2011).
5. Kerdemelidis M, Lennon D, Arroll B, Peat B. Guidelines for sore throat management in New Zealand. *N Z Med J* 2009;122(1301):10-8.
6. Yang LPH, Eriksson BKG, Harrington Z, et al. Variations in the protective immune response against streptococcal superantigens in populations of different ethnicity. *Med Microbiol Immunol* 2006;195:37-43.
7. McNicholas A, Lennon D, Crampton P, Howden-Chapman P. Overcrowding and infectious diseases - when will we learn the lessons of our past? *N Z Med J* 2000;113:453-4.
8. Howie JG, Foggo BA. Antibiotics, sore throats and rheumatic fever. *J R Coll Gen Pract* 1985;35(274):223-4.
9. Carapetis JR, Currie BJ, Mathews JD. Cumulative incidence of rheumatic fever in an endemic region: a guide to the susceptibility of a population. *Epidemiol Infect* 2000;124:239-44.
10. Loring B. Rheumatic fever in the Bay of Plenty and Lakes District Health Boards: A review of the evidence and recommendations for action. 2008. Available from: www.toiteorapublichealth.govt.nz/Rheumatic_Fever_GP (Accessed Jul, 2011).

11. Robson B, Hauroa RH. Māori standards of health IV. A study of the years 2000-2005. Ministry of Health, Wellington; 2007.
12. The National Heart Foundation of New Zealand. Guidelines for rheumatic fever: proposed rheumatic fever primary prevention programme. 2009. Available from: www.heartfoundation.org.nz (accessed May, 2011).
13. Lennon D, Kerdelmelidis M, Arroll B, Sharpe N. Once-daily amoxicillin for Group A Streptococcal (GAS) sore throat as the other first-line option: a clarification of the NZ sore throat guidelines. *N Z Med J* 2011;124(1338).
14. The National Heart Foundation of New Zealand. Algorithm 4: Guide for sore throat management, 2009. Available from: www.heartfoundation.org.nz (Accessed Jul, 2011).
15. White H, Walsh W, Brown A, et al. Rheumatic heart disease in indigenous populations. *Heart Lung Circ* 2010;19:273-81.
16. Atatoa-Carr P, Lennon D, Wilson N. Rheumatic fever diagnosis, management and secondary prevention. *N Z Med J* 2008;121(1271):59-69.
17. Spinetto H, Lennon D, Horsburgh M. Rheumatic fever recurrence prevention: A nurse-led programme of 28 penicillin in an area of high endemicity. *J Paediatric Child Health* 2011;47(4):228-34.
18. Grayson S, Horsburgh M, Lennon D. An Auckland regional audit of the nurse-led rheumatic fever secondary prophylaxis programme. *N Z Med J* 2006;119(1243):U2255.
19. Lennon D, Kerdelmelidis M, Arroll B. Meta-analysis of trials of streptococcal throat treatment programmes to prevent rheumatic fever. *Pediatr Infect Dis* 2009;28(7):e259-64.
20. Scandinavian Evaluation of Laboratory Equipment for Primary Health Care. Dtec Streptococcus A test card - Strep A test evaluation in a hospital laboratory as commissioned by Dtec AS, Norway, 2004. Available from: www.skup.nu/GetFile.ashx?fileid=325 (Accessed Jul, 2011).

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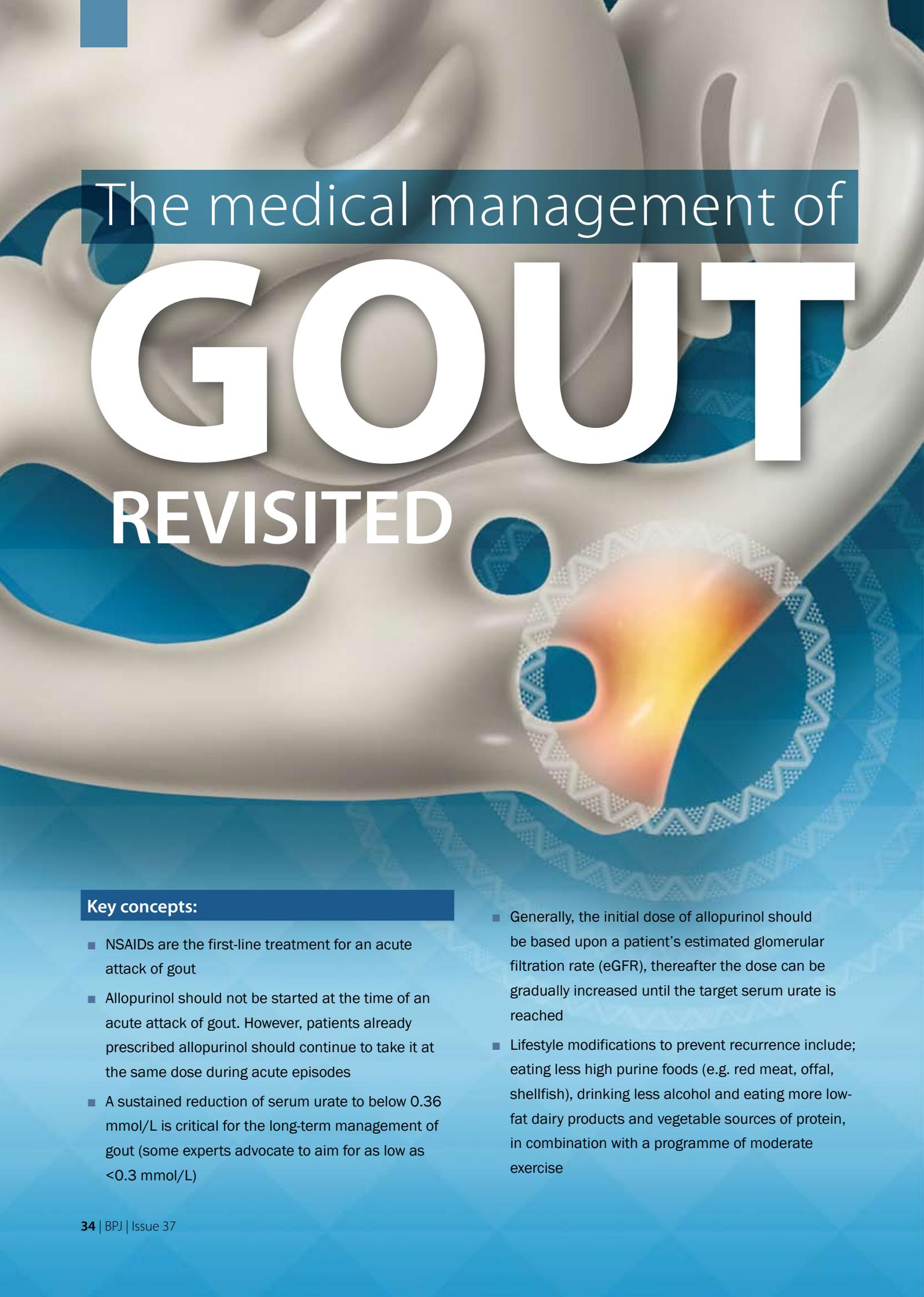
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An anatomical illustration of a hand, showing the bones and joints. A specific joint is highlighted with a glowing orange and yellow color, indicating inflammation or pain. The background is a light blue with a subtle pattern of dots and lines.

The medical management of

GOUT

REVISITED

Key concepts:

- NSAIDs are the first-line treatment for an acute attack of gout
- Allopurinol should not be started at the time of an acute attack of gout. However, patients already prescribed allopurinol should continue to take it at the same dose during acute episodes
- A sustained reduction of serum urate to below 0.36 mmol/L is critical for the long-term management of gout (some experts advocate to aim for as low as <0.3 mmol/L)
- Generally, the initial dose of allopurinol should be based upon a patient's estimated glomerular filtration rate (eGFR), thereafter the dose can be gradually increased until the target serum urate is reached
- Lifestyle modifications to prevent recurrence include; eating less high purine foods (e.g. red meat, offal, shellfish), drinking less alcohol and eating more low-fat dairy products and vegetable sources of protein, in combination with a programme of moderate exercise

Kua takoto te mānuka

The leaves of the mānuka tree have been laid down

This is a form of wero, that is performed in very formal situations on the Marae. It is when you are challenged and you answer that challenge depending on how you pick up the leaves. The wero is to see whether you come in peace or as an enemy. This proverb is used when being challenged, or you have a challenge ahead of you.

THE MEDICAL MANAGEMENT OF GOUT can be classified into three areas:

1. Treatment of an acute attack of gout
2. Long-term urate lowering treatment to prevent recurrent attacks of gout
3. Lifestyle advice for people with gout

 For further information see: “Treatment of gout – Hit the target”, BPJ 8 (Sep, 2007)

Treating an acute attack of gout

1. Exclude infection

When a patient presents with suspected acute gout, it is important to exclude other causes of inflammation, such as sepsis within the joint, especially if gout has not been previously diagnosed.

The clinical presentation of acute monoarticular gout may be identical to that of an acute septic arthritis and occasionally gout and infection can co-exist. Infection is more likely if the patient is systemically unwell and there is a single, acutely painful, swollen, hot joint (e.g. knee). Gout is the more likely clinical diagnosis if the patient has a history of similar attacks, is of male gender, is systemically well and if there is involvement of the first metatarsal phalangeal joint (MTP). Gout is a more common diagnosis than septic arthritis.¹

If after clinical review, infection is suspected, aspiration of synovial fluid from the affected joint, for microbiological

analysis, is recommended where possible, to confirm or exclude sepsis. N.B. This may also confirm the diagnosis of gout (by the presence of uric acid crystals).

2. Prescribe anti-inflammatory medicine and rest

If gout is the most likely diagnosis, the patient should be advised to rest the affected joint and should be prescribed an anti-inflammatory treatment.

NSAIDs are first-line

First-line treatment is usually an oral, non steroidal anti-inflammatory drug (NSAID), e.g. naproxen 500 mg, twice daily; ibuprofen 200–400 mg, four times daily; or diclofenac 75 mg, twice daily. Medicine should be taken until the attack subsides. Paracetamol can also be used concurrently for pain relief.

Use corticosteroids only if infection is excluded

Corticosteroids may be considered for patients in whom NSAIDs are contraindicated (e.g. peptic ulceration, concurrent anticoagulant treatment), but only if infection has been excluded. A suggested initial dose is 20–40 mg prednisone daily, gradually reduced over 10–14 days. Intra-articular corticosteroids (e.g. triamcinolone acetonide – Kenacort-A – up to 10 mg for small joints, up to 40 mg for large joints) can be especially useful if one or two joints are affected as this reduces the risks of systemic corticosteroids treatment. However, in patients with diabetes, corticosteroids should be used with caution as doses of insulin or anti-diabetic medicines may need to be adjusted.

Consider colchicine if NSAIDs and corticosteroids contraindicated

When NSAIDs or corticosteroids are contraindicated, low dose colchicine remains an appropriate treatment option. Colchicine has a slower onset of action than NSAIDs and serious adverse effects can occur if the dose is too high.² Adverse effects include: gastrointestinal disturbance, electrolyte imbalance, haematological effects and multi-organ failure. Colchicine toxicity has also been reported with concomitant use of liver enzyme inhibitors (e.g. erythromycin, ketoconazole, diltiazem), statins, fibrates and digoxin, daily consumption of grapefruit juice and in patients with hepatic or renal impairment.³

The recommended dose for colchicine for the treatment of acute gout is 1.0 mg stat, followed by 0.5 mg six hourly, up to a maximum dose of 2.0 mg per 24 hours on the first day and to a maximum of 1.5 mg on subsequent days.³ Patients should be advised to contact their doctor if gastrointestinal symptoms occur.

N.B. this is a lower dose than suggested in previous guidance.

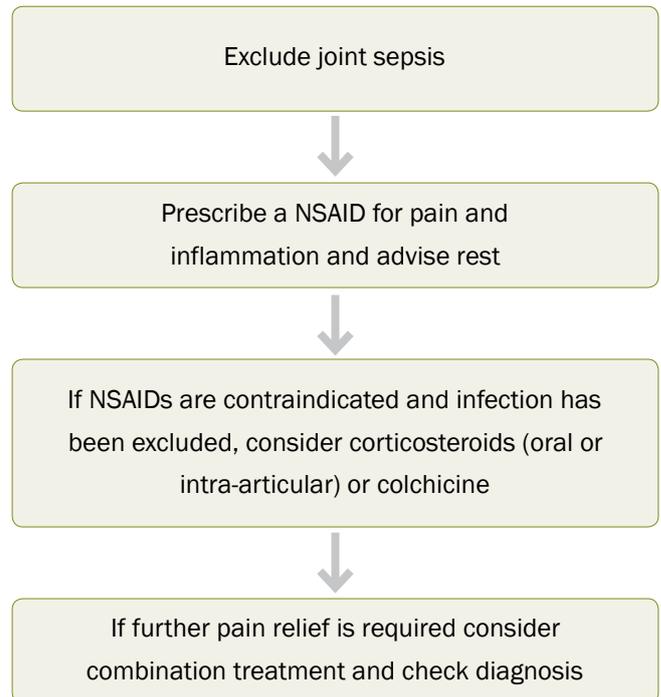
The total dose should not exceed 6 mg over four days. In elderly people who weigh <50kg, or people with renal or hepatic impairment, other treatments should be considered before colchicine but if colchicine is used the maximum cumulative dose should not exceed 3 mg over four days.⁴

Combination treatment may be useful for some people

Corticosteroids can be used in combination with NSAIDs or colchicine to provide further relief during acute gout. Colchicine can be a useful adjunct to NSAIDs in resistant cases, particularly when gouty tophi are present or to prevent flares when starting allopurinol. Weak opioid analgesics, e.g. codeine, can also be prescribed for further pain relief.²

If there is no response to treatment, the diagnosis should be reconsidered.

Treatment summary for acute gout



Serum urate levels may not be useful for diagnosis of an acute attack of gout

The diagnosis of gout is often made on clinical grounds, but if possible, should be confirmed by the presence of uric acid crystals on aspiration of the affected joint.

Although serum urate is the most important risk factor for gout, and should be measured in all suspected cases, not all patients with hyperuricaemia will develop gout. Serum urate levels do not confirm or exclude gout during acute attacks, as serum levels may be normal during this time. Serum urate should be measured again once the attack has subsided.

Although x-rays may be useful for the differential diagnosis and may show typical features in chronic gout, they are not useful in confirming the diagnosis of early or acute gout.

Do not start allopurinol during an acute attack of gout

Allopurinol should not be started at the time of an acute attack of gout, however, if a patient is already taking it regularly, then it should be continued at the same dose.

Long-term urate lowering treatment to prevent recurrent attacks of gout

Indications for the initiation of long-term urate lowering treatment in people with gout include:

- Recurrent gout attacks (two or more attacks in a year)
- Tophi
- Chronic gouty arthropathy
- Radiographic changes consistent with gout

Other factors may also influence the decision to initiate urate lowering treatment such as severity of attack, comorbidities and patient preference.⁵

Allopurinol is the most commonly used medicine for long-term urate lowering treatment and gout prevention as it inhibits the enzyme which is responsible for the production of urate.

It is advisable to wait at least two weeks after an acute attack of gout before starting allopurinol. Starting treatment with allopurinol can often precipitate gout flares. Concurrent administration of low dose NSAIDs (e.g. naproxen 250 mg, twice daily) or colchicine (0.5 mg daily or twice daily) during this two week period, and for the following three to six months (or longer in tophaceous gout), is strongly recommended to help prevent flares. Patients should be monitored for any gastrointestinal adverse effects due to NSAIDs.

 **Best Practice tip:** If the acute gout attack has been severe, consider starting 0.5 mg colchicine daily, three days after the attack has finished, while waiting to start allopurinol. This will help prevent a further gout attack, which would delay the commencement of allopurinol.

“Start low and go slow”

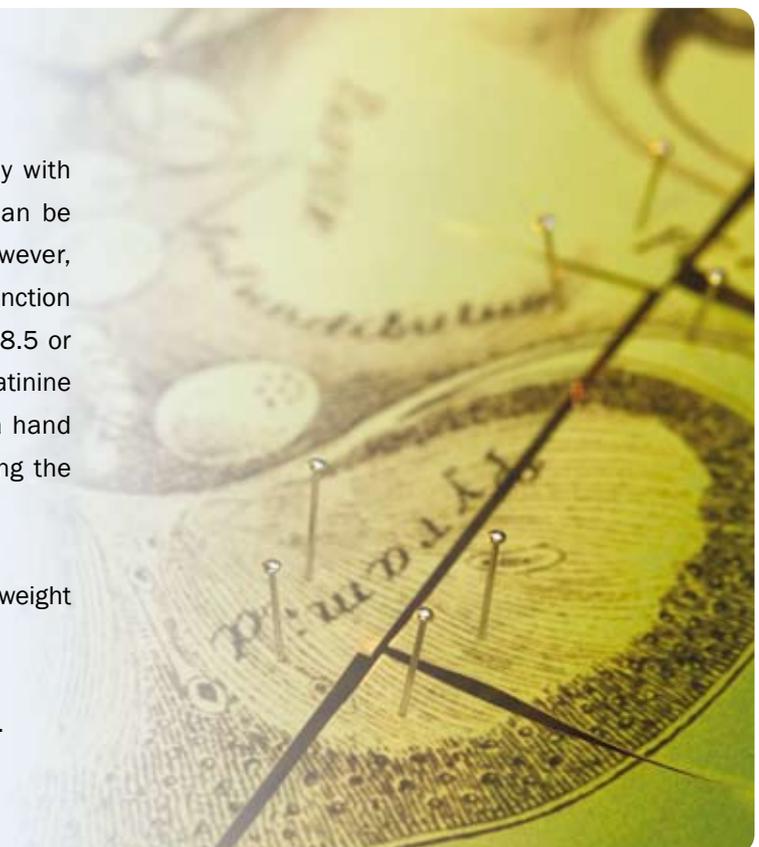
The active metabolite of allopurinol has a plasma half-life which is inversely related to renal clearance, therefore

Calculating creatinine clearance

Most laboratories report eGFR automatically with serum creatinine results, therefore eGFR can be used as a measure of renal clearance. However, eGFR may not be a good estimate of renal function in people at extremes of body size (BMI < 18.5 or > 30 kg/m²). In this case, an estimate of creatinine clearance is preferable, determined using a hand held or electronic calculating tool or by using the Cockcroft-Gault equation:

Creatinine clearance (mL/min) = (140 – age) x weight (kg) x constant/serum creatinine (µmol/L).

The constant = 1.23 for men, 1.04 for women.



the initial dose is based on the patient's renal function. For patients with an estimated glomerular filtration rate (eGFR)* of at least 30 mL/min/1.73 m², a good starting dose is 100 mg allopurinol per day, increasing by 100 mg every four weeks, unless adverse events occur, until target serum urate is reached. An alternative regimen would be 50 mg allopurinol per day, increasing by 50 mg every two weeks.

In practice, patients are often maintained on 300 mg per day as a fixed dose, although maintenance doses as high as 700–900 mg per day are acceptable for severe conditions.⁶

For patients with renal impairment, where the eGFR is less than 30 mL/min/1.73 m², it is recommended that the starting dose of allopurinol is reduced to 50 mg per day, or every second day, and then increased by 50 mg every month as guided by the serum urate levels and tolerance.

Historically there has been concern over increasing the dose of allopurinol in patients with renal impairment, however, a recent New Zealand based clinical trial of 90 patients, suggests it is generally safe to do so.⁷ It was shown that when the dose of allopurinol was gradually increased, the dose required to reach target serum urate levels ranged from 50–400 mg above the recommended dose based on creatinine clearance. Toxicity was not increased in the patients receiving higher doses of allopurinol, including those with renal impairment.

Adverse effects of allopurinol

The most common adverse effect of allopurinol is a rash (1–2%). A rare, but potentially fatal, adverse effect is

“allopurinol hypersensitivity syndrome”, characterised by fever, rash, eosinophilia, hepatitis and renal failure.

Probenecid is an option in people who are intolerant to allopurinol

For people with normal renal function who are intolerant, or allergic to allopurinol, probenecid may be used. As with allopurinol treatment, the dose should be slowly increased. The recommended dose of probenecid is 250 mg, twice daily, for the first week, increasing to 500 mg, twice daily, for the second week and then increasing by 500 mg in subsequent months to a maximum of 2000 mg, daily in divided doses. Probenecid is contraindicated in people with a history of renal stones. Patients taking probenecid need to ensure they maintain sufficient fluid intake to prevent the formation of renal stones. As with allopurinol, probenecid should not be administered during the acute phase of a gout attack.

“Treat to target”

The concept of “treat to target” is an important one for both General Practitioners and patients to understand. A target serum urate level of <0.36 mmol/L is thought to be critical for the long-term management of gout, both for suppression of attacks and regression of tophi. The target of 0.36 mmol/L is endorsed by the European League Against Rheumatism (EULAR) in its guidelines for management of gout.⁸ However, an even lower target of 0.3 mmol/L is recommended by the British Society of Rheumatology and may be appropriate for patients with large tophi to speed up the removal of these deposits.²

Ensure that patients understand that it may take up to 6–12 months, of serum urate levels below 0.36 mmol/L, before acute gout attacks begin to subside. Long-term compliance with treatment is therefore important and also one of the greatest hurdles in treating patients with gout. Strategies that can assist with compliance include:

- Encouraging whānau involvement
- Periodic follow-up on agreed treatment plans
- Regular text reminders

* eGFR may not be a good estimate of renal function in people at extremes of body size (BMI < 18.5 or > 30 kg/m²). Calculation of creatinine clearance to estimate renal function is preferable in these patients (see sidebar “calculating creatinine clearance”).

Summary of treatment to prevent recurrent gout

Treat acute gout attack, wait at least two weeks, then:



Start allopurinol 100 mg daily (if eGFR or creatinine clearance or at least 30) + prophylactic cover (with low dose NSAID +/- PPI or colchicine) for first three to six months

Or

Start allopurinol 50 mg daily (if creatinine clearance or eGFR less than 30) + prophylactic cover (as above)

Then slow increments in allopurinol to be guided by serum urate concentrations, i.e. “treat to target”

Or

For people who are intolerant to allopurinol give probenecid 250 mg, twice daily for one week, increasing to 500 mg, twice daily. Dose can be increased by 500 mg per month to a maximum of 2000 mg daily in divided doses. Increase fluid intake to prevent renal stone formation.



There is a risk of precipitating acute attacks for several months – do not stop allopurinol during acute attacks

Gout and diuretics

Use of thiazide and loop diuretics is associated with increased serum urate levels and therefore increased risk of gout. Although low dose thiazides may not exacerbate symptoms, where possible, for patients with gout, use an alternative anti-hypertensive. However, loop diuretics are still recommended for patients with cardiac failure.⁹

In patients with decreased renal function concomitant use of allopurinol with a thiazide diuretic is thought to increase the risk of allopurinol-induced hypersensitivity reactions. This combination should be used with caution.⁶

Lifestyle advice for people with gout

Recommendations for diet, lifestyle modification and non-pharmacological management of gout:²

Encourage patients to:	Recommend patients avoid:
Maintain an ideal weight	Avoid (or limit) alcohol, particularly beer
Consume low fat dairy, soy, vegetable sources of protein and foods rich in vitamin C.	Avoid (or limit) high purine foods such as red meat, shellfish, oily fish, liver, kidney, yeast extracts, sucrose and fructose containing soft drinks Avoid high protein, low carbohydrate diets
Drink water > 2 L/day	Avoid dehydration
Exercise moderately	Avoid intense exercise and joint trauma
Elevate and cool affected joints	

Follow-up for patients with gout

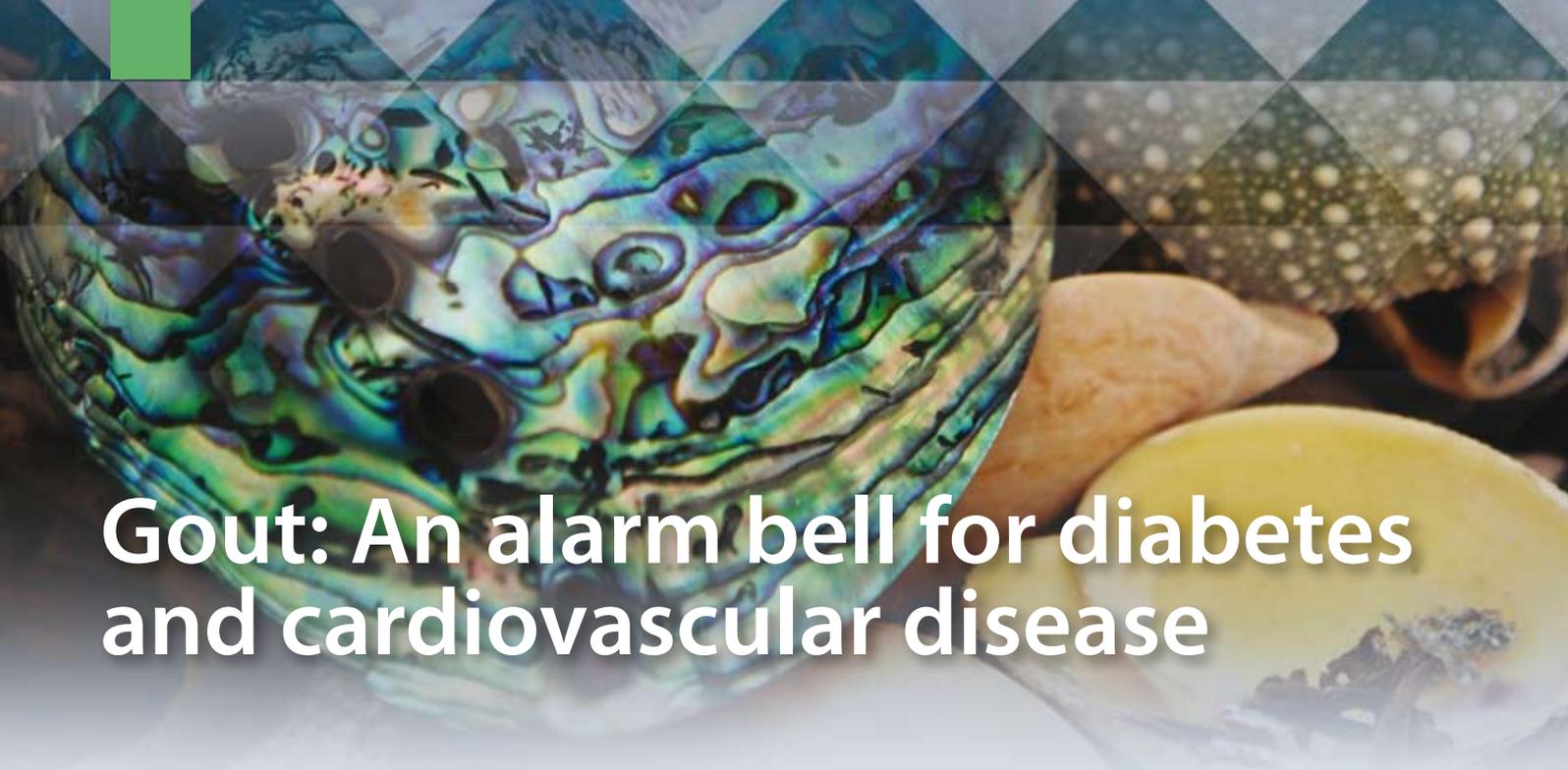
It is recommended that patients with gout should be reviewed at least yearly. The review may be performed by either the General Practitioner or Practice Nurse and should include:

- Enquiring about any gout symptoms in the past year
- Examination, looking for the development of gouty tophi
- Measurement of serum urate level
- If serum urate levels are elevated, consider starting urate lowering treatment, if not already being prescribed
- Discussing compliance with urate lowering therapy (if being prescribed and target not being met)
- Performing CVD risk assessment and providing advice about management of modifiable risk factors due to the potential association between uric acid and higher risk of CVD (see: "Gout: An alarm bell for diabetes and cardiovascular disease" opposite page)

ACKNOWLEDGEMENT Thank you to **Dr Andrew Harrison, Dr Nora Lynch, Associate Professor Lisa Stamp and Associate Professor Will Taylor**, members of the Rheumatology subcommittee of the Pharmacology and Therapeutics Advisory Committee to PHARMAC, for expert guidance in developing this article.

References

1. Becker M. Clinical manifestations and diagnosis of gout. UpToDate 2011. Available from: www.uptodate.com (Accessed Jul, 2011).
2. Jordan K, Cameron J, Snaith M et al. on behalf of the British Society for Rheumatology and British Health Professionals in Rheumatology Standards, Guidelines and Audit Working Group (SGAWG). British Society for Rheumatology and British Health Professionals in Rheumatology Guideline for the Management of Gout. Available from: <http://rheumatology.oxfordjournals.org/content/46/8/1372.full> (Accessed Jul, 2011).
3. New Zealand Rheumatology Association (NZRA). Position statement: NZRA Consensus Statement on the use of colchicine in the Treatment of Gout. Available from: www.rheumatology.org.nz/position_statement.cfm (Accessed Jul, 2011).
4. Pharmacy Retailing (NZ) Ltd. Colgout. Medicine data sheet: Available from: www.medsafe.govt.nz (Accessed Jul, 2011).
5. Neogi T. Gout. *N Engl J Med* 2011;364(5):443-51.
6. Apotex NZ Ltd. Apo-Allopurinol. Medicine data sheet: Available from: www.medsafe.govt.nz (Accessed Jul, 2011).
7. Stamp L, O'Donnell J, Zhang M, et al. Using allopurinol above the dose based on creatinine clearance is effective and safe in chronic gout, including in those with renal impairment. *Arthritis Rheum* 2011;63(2):412-21.
8. Zhang W, Doherty M, Bardin T, et al. EULAR evidence based recommendations for gout. Part II: Management. Report of a task force of the EULAR Standing Committee for International Clinical Studies Including Therapeutics (ESCSIT). *Ann Rheum Dis* 2006;65(10):1312-24.
9. Doherty M. New insights into the epidemiology of gout. *Rheumatology (Oxford)* 2009;48 (Suppl 2):ii2-ii8.



Gout: An alarm bell for diabetes and cardiovascular disease

Contributed by: The Counties Manukau DHB Māori Gout Action Group

IN NEW ZEALAND, gout is increasingly recognised as a chronic health condition with significant impact on individuals, whānau and communities. Evidence for poor management, consequent complications,¹ and qualitative evidence showing graphic impacts on the lives of patients and their whānau² prompted the formation of the Counties Manukau DHB Māori Gout Action Group (MGAG) in 2007.³

The MGAG identified five publicly held myths about gout and presented a plan with five interweaving strands aimed towards “outing gout” and moving towards 21st century management of gout.³

Five myths about gout:³

1. Gout is a relatively uncommon and minor condition compared to other priority issues that need attention.
2. Gout does not consume secondary care resources.
3. People who have gout bring it on themselves by drinking too much and eating the wrong foods.
4. Gout is a normal part of life, and you just put up with it.
5. Medicines for gout should be taken for acute attacks only.

21st century management of gout

The MGAG plan for the management of gout has five interweaving strands:³

1. Enhancing improved primary care management of gout.
2. Patient resource development.
3. A campaign to destigmatise gout as a tolerated disease.
4. Further research into the impact and causes of gout.
5. Strategic alliances to ensure that the treatment and prevention of gout is advocated by those working with conditions related to gout such as diabetes and cardiovascular disease.

Outing gout

A key initiative led by MGAG has been a series of “Outing Gout” hui in order to disseminate latest research knowledge on management and biological causes of gout, to a range of primary health care professionals and the wider community. The third hui (“Outing Gout 3”) took place in March 2011, in partnership with Ngāti Porou Hauora at Pakirikiri Marae in Te Tairāwhiti.

“Outing Gout 3” focused on the relationship between gout, cardiovascular disease and diabetes. Two epidemiological studies presented at the hui, demonstrate this relationship:

1) National prevalence of gout derived from administrative health data

Data first began to emerge over 15 years ago, that indicated a high prevalence of gout in New Zealand, particularly among people of Māori ethnicity. A recent New Zealand study, using administrative health data (hospitalisation and drug dispensing claims for allopurinol and colchicine) has provided a current estimate of the prevalence of gout.⁴

Main results from the study analysis included:⁴

- A crude prevalence rate of gout of 3.8% in people aged 20 years or older, representing approximately 115,000 affected individuals.
- A prevalence rate of gout of 9.6% in Māori men, 12.3% in Pacific men, 5.1% in European men and 3.5% in Asian men
- The prevalence rates of gout in women were three to four-fold less than in men.
- The prevalence rate of gout increased dramatically in older people –>30% increase for Māori and Pacific men aged over 60 years and >10% increase for European men aged over 60 years.

The study team identified some opportunities for intervention in patients with gout in order to reduce the risk of co-morbid conditions such as cardiovascular disease and

diabetes. Interventions for primary care could include:

- **Whānau.** Engage whānau to support lifestyle changes and to support the patient to see their General Practitioner or Practice Nurse for CVD risk assessment.
- **Practice Nurses.** Target patients with gout for CVD risk and diabetes assessments. A study based at Middlemore Hospital has demonstrated that nurse-led interventions to assess and manage CVD risk in patients with gout are effective in improving uptake of preventative interventions.⁵
- **Pharmacists.** Refer people to their General Practitioner for a CVD check if they are asking about pain relief for their gout, as well as to discuss further management of their gout.
- **Measurements.** Measure uric acid regularly and document (i.e. graph).

2) Gout in patients with type 2 diabetes and impaired glucose tolerance: common and undertreated

The relationship between gout and type 2 diabetes was studied through analysis of the Diabetes Care Support Service register maintained by the Diabetes Projects Trust in Auckland.⁶ The objective of this study was to determine the prevalence, associated clinical risk factors and current management of gout in patients with diabetes. A total of 18,446 people with diabetes or impaired glucose tolerance were included.

Key results of the study were:⁶

- The prevalence of gout was 1.0% in people with type 1 diabetes, 16.0% in people with type 2 diabetes and 13.3% in people with impaired glucose tolerance.
- In Māori and Pacific peoples with type 2 diabetes the prevalence of gout was 28.5% and 23.7%, respectively.

Clinical factors associated with an increased risk of gout in people with type 2 diabetes were; increased age, male gender, smoking, being overweight and poorer kidney

function. Conversely, clinical factors associated with a decreased risk of gout in people with type 2 diabetes (but not type 1 diabetes) were; increased HbA_{1c} and metformin treatment. The reason for this is unclear, but has been hypothesised to be due to polydipsia associated with diabetes increasing the renal excretion of uric acid.⁷

In a subset of 414 patients with gout and diabetes, 6.7% were achieving target serum urate levels, 51% were treated with allopurinol and only 33.6% had ever had their serum urate level tested.⁶

General Practitioners can improve gout outcomes in patients with diabetes, by indentifying through audit, patients with:

- Documented gout and no serum urate check in the last year
- Documented gout, serum urate >0.36 mmol/L, on allopurinol
- Documented gout, serum urate >0.36 mmol/L, not on allopurinol
- No documented gout, but serum urate ≥0.60 mmol/L (hyperuricemia can be associated with uric acid stones)

In summary: gout should be an indicator of CVD risk

Presentation of recent research findings at the “Outing Gout 3” hui emphasised the current high prevalence of gout in New Zealand, the increased risk of diabetes and cardiovascular disease in people with gout, and the high prevalence of gout in people with diabetes. It is clear to the MGAG that gout in New Zealand’s unique population needs to be managed and researched in the context of co-morbidities and managing cardiovascular disease risk, using the whānau ora model. Equally important, however, is lobbying for the incorporation of gout and serum urate measurement into clinical algorithms and clinical management guidelines of co-morbid conditions. Gout can be regarded not just as a “nasty event” but also as an indicator of cardiovascular risk.

References

1. Kumar S, Gow P. A survey of indications, results and complications of surgery for tophaceous gout. *N Z Med J* 2002;115:U109.
2. Lindsay K, Gow P, Vanderpyl J, et al. The experience and impact of living with gout: a study of men with chronic gout using a qualitative grounded theory approach. *J Clin Rheumatol* 2011;17:1-6.
3. Winnard D, Kake T, Gow P, et al; Māori Gout Action Group in Counties Manukau District Health Board. Debunking the myths to provide 21st century management of gout. *N Z Med J* 2008;121:1274.
4. Winnard D, Wright C, Taylor WJ, et al. National prevalence of gout derived from administrative health data in Aotearoa New Zealand. *European League Against Rheumatism. Annual scientific meeting; 2011* (Abstract available from: www.eular.org). *Ann Rheum Dis* 2011;70(Suppl3):187.
5. McLachlan A, Kerr A, Lee M, Dalbeth N. Nurse-led cardiovascular disease risk management intervention for patients with gout. *Eur J Cardiovasc Nurs* 2011;10(2):94-100.
6. Liu Q, Gamble G, Pickering K, et al. Gout in patients with type 2 diabetes and impaired glucose tolerance; common and untreated. *N Z Society for the Study of Diabetes. Annual scientific meeting; 2011*.
7. Rodríguez G, Soriano LC, Choi HK. Impact of diabetes against the future risk of developing gout. *Ann Rheum Dis* 2010;69:2090-4.

ACKNOWLEDGEMENT Article contributed by Associate Professor Tony Merriman on behalf of the Counties Manukau DHB Māori Gout Action Group: Bruce Arroll, Caran Barrett-Boyes, Nicola Dalbeth, Peter Gow, Eraina Harbour, Victoria Harris, Francesca Holloway, Karen Lindsay, Tony Merriman, Jane Messer, Hazra Sahid, Gabrielle Sexton, Donna Snell, Lynanne Stanaway, George Vea, Doone Winnard.

Cardiovascular disease risk assessment

What are the PHO Performance Programme indicators and how are they best achieved?

Tama tu, tama ora, tama noho, tama mate
The active person will be healthy, the inactive unhealthy



Supporting the PHO Performance Programme

The PHO Performance Programme

The PHO Performance Programme is a quality improvement initiative which aims to improve health and reduce inequalities amongst the enrolled population. The programme was introduced in January 2006.

Performance is measured against agreed indicators and the goals of the programme are to:

- Encourage and reward improved performance by PHOs in line with evidence based guidelines
- Measure and reward progress in reducing health inequalities by including a focus on high need populations

Performance indicators may change from year to year and some indicators are for information only and do not qualify for payments. Table 1 details the indicators that are currently funded.

 See “Ischaemic cardiovascular disease: what are the PHO Performance Programme indicators and how are they best achieved?” BPJ 36 (Jun, 2011), for the previous article in this series.

Performance indicator for cardiovascular disease risk assessment

Cardiovascular disease (CVD) is the leading cause of mortality in New Zealand. Latest mortality statistics show that 45% of female deaths and 43% of male deaths in 2008 were caused by CVD.¹ Many cardiovascular related deaths are premature and preventable. The main benefit of assessing and recording the CVD risk for patients is to enable lifestyle choices and treatment options to be established early.

Indicator definition

The PHO Performance Programme indicator and target for CVD risk assessment is: **For 80% of the enrolled eligible population to have their CVD risk assessed and recorded in their patient notes within the last five years.**

This indicator was introduced 1 July 2008, and makes up 20% of a PHO’s performance payment (8% for achieving the target in the total population and 12% for achieving the target in the high needs population). CVD risk assessment has the greatest payment weighting of all the funded programme indicators.

Table 1: Funded PHO Performance Indicators for the period commencing 1 January, 2011

Chronic conditions	Cervical cancer screening
	Breast cancer screening
	Ischaemic cardiovascular disease detection
	Cardiovascular disease risk assessment
	Diabetes detection
	Diabetes follow-up after detection
Infectious disease	Smoking status
	Influenza vaccine in people aged over 65 years
	Age appropriate vaccinations for children aged two years
Financial	GP referred laboratory expenditure
	GP referred pharmaceutical expenditure

The high needs population is defined as Māori and Pacific peoples and people living in New Zealand deprivation decile 9 or 10 socioeconomic areas (most deprived). CVD affects this group disproportionately compared to other New Zealanders.

Population eligible for CVD risk assessment

The denominator for this indicator (i.e. what the results are measured against) is the number of enrolled people in the PHO who are eligible for a CVD risk assessment.

Populations included in CVD risk assessment indicator:²

Māori, Pacific and Indian subcontinent WOMEN aged 45–74

Māori, Pacific and Indian subcontinent MEN aged 35–74

All other ethnicities MEN aged 45–74

All other ethnicities WOMEN aged 55–74

This definition specifically relates to the PHO Performance Programme indicator and covers the majority of people recommended for CVD risk assessment. However, it is important to note that the New Zealand Guidelines recommend earlier assessment (from age 35 years for males and from age 45 years for females) for other high risk groups, e.g. those with a family history of CVD or high risk of developing diabetes.³

How to identify those eligible?

Recording of age, sex, ethnicity and socioeconomic data for enrolled patients is essential. This information quantifies non-modifiable risk factors associated with CVD, allowing the high needs population to be targeted.

Ethnicity codes can be recorded at the time of patient enrolment. The codes comprise two digits, e.g. 21 NZ Māori, 30–37 Pacific Islands and 43 Indian.

Deprivation Socioeconomic factors contribute to CVD risk and should be recognised when identifying people for CVD risk assessment. The Living Standards and Health Survey 2006/07 found that adults experiencing severe hardship were 60% more likely to have CVD than those who were not experiencing hardship.⁴

Patients living in the most deprived socioeconomic areas (decile 9 and 10) should be identified as high risk and targeted for CVD risk assessment.

Risk assessment tools

The risk assessment tools included in the New Zealand guidelines are based on Framingham data with New Zealand specific adjustments. The Framingham longitudinal heart study began in 1948 and is designed to identify common factors that contribute to CVD risk. Tools based on Framingham data are used internationally to perform CVD risk assessment.⁵ When used, as outlined in the New Zealand guidelines, risk prediction can be performed with confidence for the majority of patients (see side bar “Over or underestimation of CVD risk”).

The Heart Foundation “Know Your Numbers” programme is a useful tool for engaging patients and motivating change. It shows the lifetime risk trajectory and how high risk can be improved with lifestyle interventions and treatment. Patients need to know their blood pressure and cholesterol ratio (total cholesterol/HDL cholesterol) to participate online.

 Risk assessment tools that are available online or can be integrated into the practice management system include:

- New Zealand cardiovascular guidelines handbook: www.nzgg.org.nz
- National Heart Foundation: www.knowyournumbers.co.nz
- *bestpractice* Decision Support (registration required): www.bestpractice.net.nz
- Predict (registration required): www.enigma.co.nz (key word “medical”)

Ways to optimise CVD risk assessment and recording of data

- Invite eligible patients to make an appointment by post.
- “Flag” eligible patients and allocate more time in appointments to undertake the assessment along with their current concern. Many of the assessment tools have a function to tag alerts to patient files.
- When time permits, consider opportunistic assessment. The Practice Nurse can action alerts and invite patients for an assessment.
- Use other parameters such as non-fasting blood samples to perform risk assessment, rather than lose an opportunity for CVD risk assessment. Adopting a “one stop shop” policy is an efficient use of both the patient and clinicians’ time.
- Undertake an audit of patients with known CVD, to ensure their risk has been recorded within the last five years. There are several population audit tools available that can automate this process.

Patient understanding is key

Many risk factors contributing to CVD can be modified by the patient themselves, such as; smoking, physical activity, diet, lipid levels, blood pressure, alcohol intake, stress and obesity.

Education and support are required to enable patients to reduce their CVD risk. This may involve lifestyle changes or adherence to pharmacological treatment for hypertension, abnormal lipid levels or diabetes. It is also important to acknowledge the role of non-modifiable factors such as family history (see sidebar “Different world views”).

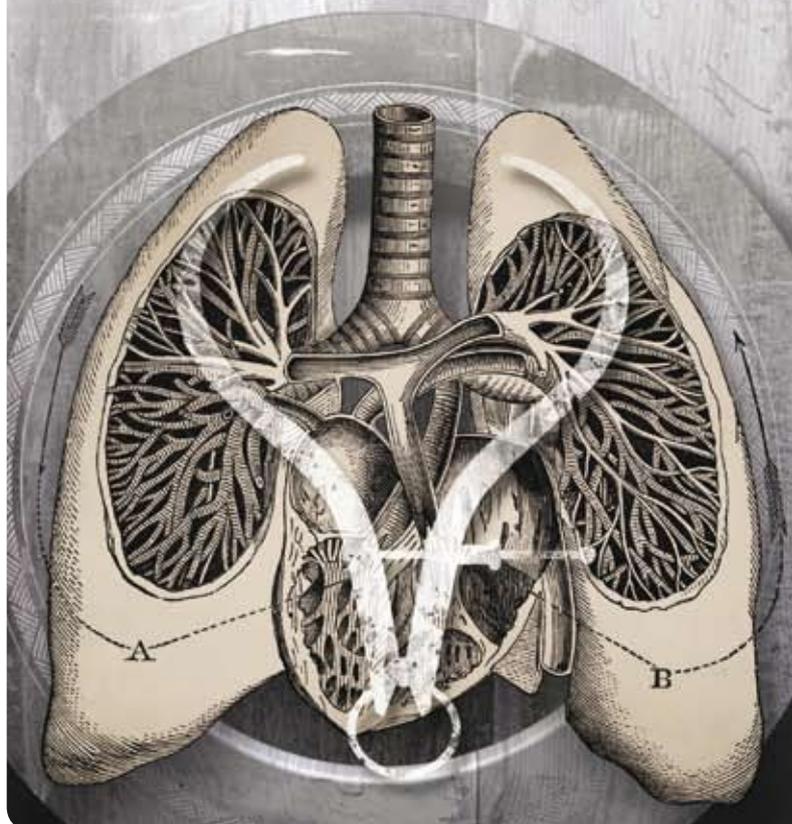
To improve health outcomes in terms of CVD risk reduction for Māori, consider the importance of health literacy. The patient and their whānau must be able to access, understand and act on information about their CVD risk. Make sure patients have knowledge about the medicines they are prescribed and the lifestyle interventions they should undertake. This in turn allows the patient and

Over or underestimation of CVD risk?

The New Zealand guidelines are based on Framingham data that has been adjusted to account for the Māori, Pacific and Indian populations. However, this adjustment tends to overestimate risk for the New Zealand European population by up to 5%.⁶

There are other risk assessment tools available. Regardless of which one is used, it is an important prompt to identify at risk people. Interpreting the calculated CVD risk then requires clinical judgement to relate the significance of other patient factors that the risk calculator does not take into account, such as deprivation.

 For further information see “Assessing cardiovascular risk: what the experts think” BPJ 33 (Dec, 2010).



Different world views

Māori and Pacific peoples have a greater risk of experiencing adverse cardiovascular events.⁷ Findings from a study in Te Tai Tokerau (Northland) found that Māori patients were aware of the genetic component and family trends associated with cardiovascular disease, but they generally had less understanding of the impact of lifestyle factors on risk.⁹

However, if health professionals focus on the modifiable risk factors without first acknowledging the non-modifiable factors, there is a risk of inadvertently blaming the individual for their situation. This can prevent a trusting relationship from being formed.

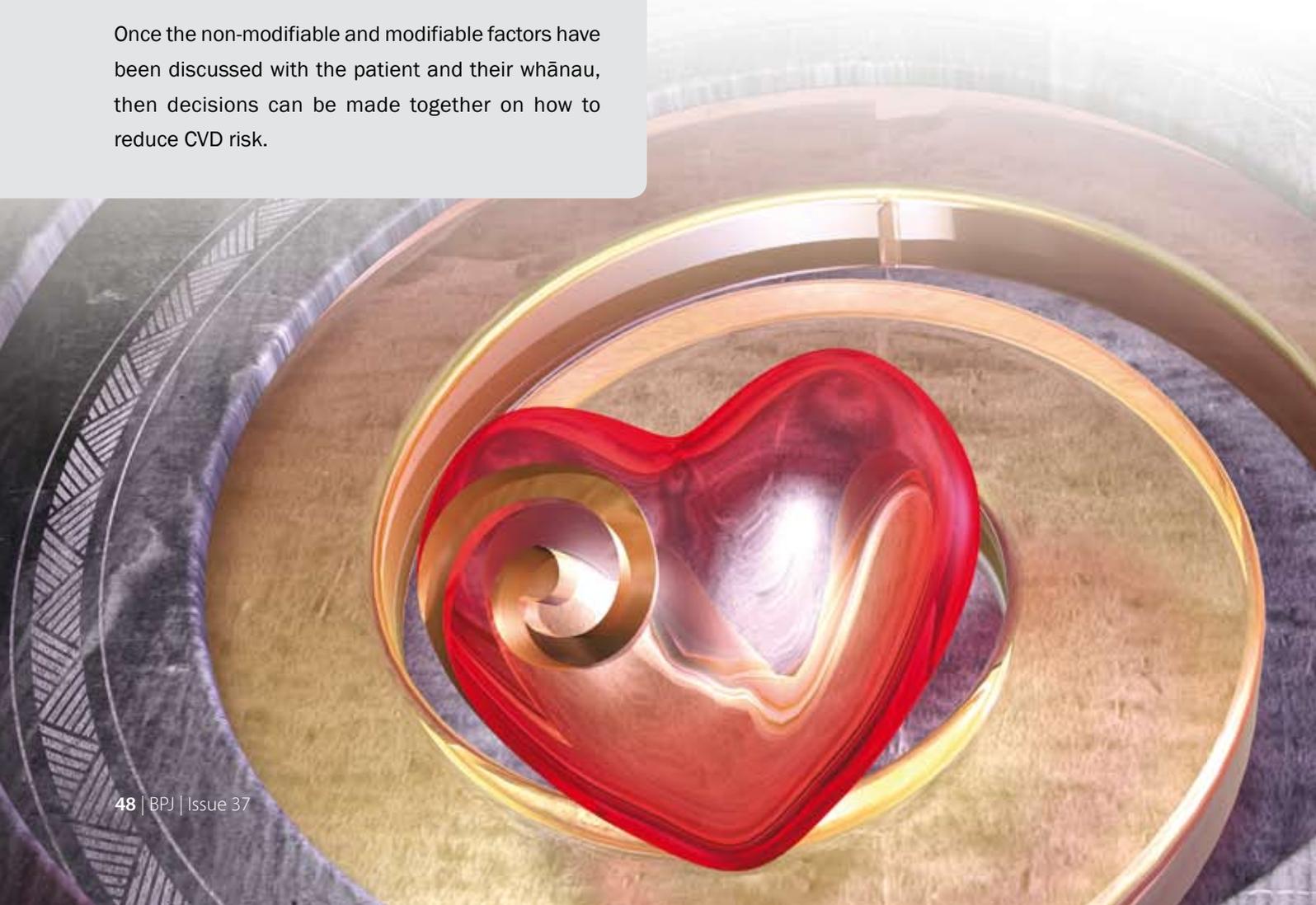
An effective relationship with the patient helps health professionals to explain the influence of behaviour. It is important to understand that patients may feel a sense of powerlessness to change cardiovascular outcomes due to their family history.

Once the non-modifiable and modifiable factors have been discussed with the patient and their whānau, then decisions can be made together on how to reduce CVD risk.

their whānau to feel more confident about their ability to manage their CVD risk and to interact with their healthcare providers.

It is important not to stop at the CVD risk assessment

A study involving over 1500 patients in an Auckland PHO found that CVD risk assessment could be undertaken with good results, however, those found to have increased CVD risk were not always followed through. Māori were found to be significantly more likely to be at high CVD risk than non-Māori. Of those at high CVD risk, 78% were prescribed medicine for blood pressure lowering, 72% for lipid management, 65% for anti-platelet and 50% were prescribed all three treatments. However, among those with either diabetes or established CVD, 66% were not meeting blood pressure or lipid management recommendations.⁸



References

1. Ministry of Health. New Zealand mortality statistics: 1950 to 2010. Available from: www.moh.govt.nz (Accessed Jul, 2011).
2. DHBNZ. PHO Performance Programme. Indicator definitions. Version 5, January 2011. Available from: www.dhbnz.org.nz/Site/SIG/pho/Operational-Documents.aspx (Accessed Jul, 2011).
3. New Zealand Guidelines Group. New Zealand cardiovascular guidelines handbook: a summary resource for primary care practitioners. 2nd ed. Wellington: New Zealand Guidelines Group; 2009. Available from: www.nzgg.org.nz (Accessed Jul, 2011).
4. Ministry of Health. Living standards and health: New Zealand 2006/07. Wellington: Ministry of Health; 2010. Available from: www.moh.govt.nz (Accessed Jul, 2011).
5. Bosomworth JN. Practical use of the Framingham risk score in primary prevention. Canadian perspective. *Can Fam Physician* 2011; 57(4):417-23.
6. Riddell T, Wells S, Jackson R, et al. Performance of Framingham cardiovascular risk scores by ethnic groups in New Zealand: PREDICT CVD-10. *N Z Med J* 2010;123(1309):50-61.
7. Kerr AJ, McLachlan A, Furness S, et al. The burden of modifiable cardiovascular risk factors in the coronary care unit by age, ethnicity and socioeconomic status – PREDICT CVD-9. *NZ Med J* 2008;121:1285;20-33.
8. Peiris D, Murray J, Scully D, et al. Cardiovascular risk management at a Māori-led Primary Health Organisation – findings from a cross-sectional audit. *N Z Med J* 2008;121(1285).
9. Kerr S, Penney L, Moewaka Barnes H, McCreanor T. Kaupapa Māori Action Research to improve heart disease services in Aotearoa, New Zealand. *Ethnicity Health* 2010;15(1):15-31.

The **Your Heart Forecast** tool can now be launched from *bestpractice* and is automatically populated from data extracted from the practice management system and/or entered by the clinician in *bestpractice*.



The tool shows patients:

- Their current risk (where they are now)
- How it relates to a peer with ideal risk factor control and same CVD risk (their cardiovascular age)
- What would happen to their risk as they get older and made no changes (their heart forecast)
- What would happen to their risk if they made healthy lifestyle changes, for example, stopped smoking.

The Your Heart Forecast tool was designed by Drs Sue Wells and Andrew Kerr, at the University of Auckland, and supported by the Heart Foundation, to help doctors communicate cardiovascular risk.

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A hand is shown submerged in water, with water droplets and bubbles around it. The hand appears pale, illustrating the condition discussed in the text. In the top left corner, there is a small circular icon of a medical instrument, possibly a stethoscope or a similar diagnostic tool.

Raynaud's phenomenon: A whiter shade to winter's pale

During the winter months, complaints of pain associated with cold fingers and toes increase. In New Zealand, it is estimated that 19% of females and 5% of males experience symptoms consistent with Raynaud's phenomenon.¹ This is a circulatory disorder, characterised by episodic attacks where arteries in the fingers and toes spasm, restricting blood flow and causing pain and marked colour changes of the skin.² In some people it may also affect other peripheral areas, such as the tip of the nose and ears.

In New Zealand, Raynaud's phenomenon is reported to affect Māori and people with manual occupations more severely.¹ Initial vasoconstriction causes a white appearance to the skin as blood flow decreases, which is often followed by a cyanotic blue phase, as the trapped blood deoxygenates.² Attacks may last from minutes to hours and usually end with rapid perfusion of blood back into the digits, which then appear red. Episodes of Raynaud's frequently cause pain and a "pins and needles" sensation due to sensory nerve ischaemia.² The cause of Raynaud's is unknown, however, it is likely to involve increased activation of sympathetic nerves due to cold, or emotional stimulus.² In secondary Raynaud's, abnormalities of vascular structure and function from the underlying condition contribute to the phenomenon.

Diagnosis is based on clinical symptoms and signs

A diagnosis of Raynaud's phenomenon is based on a history of repeated and sudden episodes with the characteristics as described above. Patients may report attacks being triggered by cold weather, or other cold environments such as refrigerated areas in supermarkets or from cold air conditioning.³ There may be a family history present. An occupational history should be taken – people who use vibrating hand tools or have ongoing exposure to cold, e.g. meat packers, are at an increased risk of Raynaud's.³

Raynaud's can be primary or secondary

It is important to distinguish between primary and secondary Raynaud's so that a potentially serious, underlying condition, is not overlooked. Primary Raynaud's has no underlying etiology and clinical examination may be normal, therefore it is a diagnosis of exclusion.

Secondary Raynaud's can occur due to a number of connective tissue diseases such as systemic sclerosis (scleroderma), systemic lupus erythematosus and rheumatoid arthritis, but can also occur with a range of

other conditions, including carpal tunnel syndrome and hypothyroidism. Raynaud's may also be secondary to medicines or trauma, particularly vibration injury.³ Patients with secondary Raynaud's may have skin changes such as ulcerated or necrotic patches around the affected area.⁴

The presence of any of the following factors suggest a diagnosis of secondary Raynaud's:³

- Age of onset > 30 years
- Intense, painful, asymmetric attacks or attacks associated with ischaemic skin lesions
- Symptoms suggestive of an underlying disorder, especially a connective tissue disease – such as systemic sclerosis, where in up to 90% of cases Raynaud's is one of the presenting symptoms.⁵

Laboratory testing is unhelpful in people with primary Raynaud's, but if a diagnosis of secondary Raynaud's is suspected, testing may help confirm the presence of an underlying condition. Initially, testing may include complete blood count, CRP and antinuclear antibody (ANA), however, other tests may be indicated depending on the clinical findings and suspected underlying condition. In some cases, treating the underlying condition will also ameliorate Raynaud's phenomenon.⁶

Conservative treatment is often the best

Behaviour modification is the first strategy for alleviating symptoms of Raynaud's phenomenon. A "common sense" strategy of avoiding abrupt changes in temperatures, therefore preventing peripheral vasoconstriction, can be effective. Considerations include clothing, home heating and workplace conditions.

Practical tips for avoiding or minimising episodes of Raynaud's include:⁷

- Keep the whole body warm and wear warm socks, gloves and a hat when going out in cold weather
- Avoid carrying objects in the hand, e.g. a handbag, which can restrict blood to the fingers when gripped

- Maintain regular movement, e.g. squeezing a stress ball or walking round the room
- Avoid smoking as this causes vasoconstriction
- The consumption of "warming" foods such as porridge or chilli has been reported by some people to ameliorate symptoms⁶
- When an attack occurs, place hands in warm water or under the armpits, or rotate arms in a windmill pattern

People who experience Raynaud's should avoid medicines which reduce blood flow to the peripheries, such as:⁴

- Serotonin receptor agonists, e.g. triptans used to treat migraines
- Ergots (Claviceps fungi derivatives), e.g. ergotamine used to treat migraines
- Clonidine (which decreases cardiac output)

Historically there have been reports that non-selective beta-blockers, e.g. propranolol, carvedilol, nadolol, exacerbate Raynaud's. Recent studies have shown that beta blockers with beta-1 selectivity, e.g. metoprolol, are less likely to cause vasoconstriction in patients with Raynaud's. However, beta blockers should be used cautiously, in people who experience severe Raynaud's symptoms.⁸

Medication is the second option

In severe cases of Raynaud's, the use of medicines that cause vasodilation of the digits may be considered. Calcium channel antagonists such as nifedipine, amlodipine and felodipine are frequently effective in the treatment of Raynaud's and are all fully funded in New Zealand. However, calcium channel blockers are less effective for treating patients with secondary Raynaud's, notably Raynaud's secondary to systemic sclerosis (scleroderma).⁹

Adverse effects of treatment are experienced by up to three-quarters of patients with Raynaud's and may include headache, flushing, dizziness and peripheral oedema.

However, these effects can be controlled with careful dosing and if mild, are often considered by the patient to be preferable to the symptoms of Raynaud's itself.⁹

It is recommended that patients are started on the lowest dose of the chosen medicine (Table 1). The dose can then be increased incrementally as required and tolerated. If a patient reports that one calcium channel blocker is ineffective then another can be trialled.⁹ Primary Raynaud's may spontaneously remit, therefore treatment can be stopped from time to time in order to confirm persistence.⁴ Some people report that intermittent use of the medicine prior to exposure to cold weather is sufficient.

Patients with secondary Raynaud's, who find calcium channel blockers ineffective, may benefit from the concomitant administration of an additional vasodilator such as transdermal nitroglycerin.⁹

Table 1: Calcium channel blockers for Raynaud's phenomenon⁹

Medicine	Dose
Nifedipine (sustained-release)	30 – 120 mg/day
Amlodipine	5 – 10 mg/day
Felodipine (extended release)	2.5 – 10 mg/day

Many other medicines, such as other vasodilators, endothelin antagonists, phosphodiesterase-5 inhibitors, prostaglandin derivatives, statins, botulinum toxin and N-acetyl-cysteine have been trialled in patients unresponsive to calcium channel blockers, however, there is limited evidence as to their effectiveness.

Rarely, in severe cases, surgical destruction of sympathetic nerves (sympathectomy) may be required to alleviate symptoms.

References:

1. Purdie G, Harrison A, Purdie D. Prevalence of Raynaud's phenomenon in the adult New Zealand population. *N Z Med J* 2009, 122;1306,55-62.
2. Cooke JP, Marshall JM. Mechanisms of Raynaud's disease. *Vasc Med* 2005;10:293–307.
3. Wigley FM. Clinical manifestations and diagnosis of the Raynaud phenomenon. UpToDate 2011. Available from: www.uptodate.com (Accessed Jul, 2011).
4. Clinical Knowledge Summaries. Raynaud's phenomenon – Management. Available from: www.cks.nhs.uk (Accessed Jul, 2011).
5. Devulder J, Van Suijlekom H, van Dogen R, et al. Ischemic pain in the extremities and Raynaud's phenomenon. *Pain Pract* 2011;11(2):1-8.
6. Kawald A, Burmester GR, Huscher D, et al. Low versus high-dose iloprost therapy over 21 days in patients with secondary Raynaud's phenomenon and systemic sclerosis: A randomized, open, single-centre study. *J Rheumatol* 2008;35(9):1830-7.
7. Wigley F. Nonpharmacologic therapy for the Raynaud phenomenon. UpToDate, 2010. Available from: www.uptodate.com (Accessed Jul, 2011).
8. Podrid PJ. Major side effects of beta blockers. UpToDate 2010. Available from: www.uptodate.com (Accessed Jul, 2011).
9. Wigley FM. Pharmacologic and surgical treatment of the Raynaud phenomenon. UpToDate 2011. Available from: www.uptodate.com (Accessed Jul, 2011).

Archived

Oxycodone: is the problem in secondary care?

A large amount of feedback was received in response to the article: "Oxycodone use still increasing", BPJ 36 (Jun, 2011) and the accompanying personalised prescribing report: "Oxycodone prescribing". We present a selection of these comments:

Dear Editor,

I am a General Practitioner with a 2/10th commitment to rest home care. As such I frequently take over care of patients with terminal illness discharged from a DHB hospital. More commonly than not, when an opiate is prescribed by the hospital doctors, it is oxycodone.

Although I am aware of the advantages of morphine, I am usually constrained from switching these patients for the following reason:

I am a new doctor to them, and the patient (and family) often thinks: "You don't know me, not like the previous doctors, so what makes you think you can just come in and change all the medicines when we have just got things stabilised. Surely the hospital doctors (house officer and registrar) know more than you do, and yet you're telling us that your medicine choice is better than theirs!"

I believe the root-cause of this problem lies within the DHB's.

Conrad Surynt, General Practitioner
Auckland



Dear Editor,

I've just received my personalised prescribing report about oxycodone.

I know that I haven't initiated a single patient on oxycodone, and any patients who are taking it have been started on it by either the pain clinic or the hospice. In most situations, the patient has not been previously given morphine, and the reason seems to be that they wish to avoid the psychological associations or stigma of morphine, or because the patient is fearful of becoming addicted to morphine.

Patients do not like being changed from the drug started by "the specialist" and are particularly resistant to any feeling that they are being denied a drug because of cost.

I therefore think you would do better educating the hospital and palliative care specialists if you want to make a dent in oxycodone prescribing.

Joanna Joseph, General Practitioner
Wellington

Dear Editor,

Thank you for your feedback report on oxycodone vs. morphine prescribing. I am in complete agreement, however, it is probably not General Practitioners you need to convince but hospital prescribers.

I have never (and I'm sure about this) initiated oxycodone. This has always been done by hospital doctors and then one feels somewhat obliged to continue with this, especially if the patient appears to be benefiting.

Dr Andrew Smillie, General Practitioner
Dunedin

Dear Editor,

I have just received your personalised Report of "my" oxycodone prescribing. In this area, we are constantly receiving patients discharged from Hospital on oxycodone. Since this medication has been prescribed by the "specialists" we have little option but to continue it.

I think there IS a place for this medicine in my practice, which is when terminal care patients, still on oral medication, turn out to be intolerant of morphine (my first choice always). I do not think there is any evidence to support that oxycodone has fewer side effects or is better tolerated; but, occasionally it will be tolerated when morphine is not.

The reps are promoting oxycodone as having fewer side effects, which as we know is not supported by evidence. It is important to critically analyse what is presented to you and some clinicians may be temporarily forgetting this.

Dr Sergio Battistessa, General Practitioner
Waiuku

Dear Editor,

Re. The latest personalised feedback regarding oxycodone prescribing.

I have never initiated an oxycodone prescription, but have on occasions renewed prescriptions for patients (largely surgical) who have been prescribed the drug whilst in hospital. I suspect a good number of my General Practitioner colleagues will be in the same boat.

This follows a familiar theme seen in the past with Fortral [pentazocine – discontinued], tramadol and other new drugs, that have been enthusiastically adopted by our less discriminate hospital colleagues, usually surgeons, only to fall by the wayside at a later date when issues such as lack of efficacy, side effects or expense have surfaced.

I would feel much happier getting your feedback reports if I knew that the hospital doctors were getting similar feedback, and being vigorously encouraged to prescribe responsibly.

John Hudson, General Practitioner
Christchurch

We thank all of the correspondents for their feedback on this important issue. Two main themes emerge from the discussion:

1. Oxycodone is largely being initiated in secondary care
2. Primary care prescribers feel that they have no choice but to continue these prescriptions

Therefore the outstanding questions are: why are secondary care prescribers using oxycodone in preference to morphine or other analgesics? Has the marketing of this medicine caused the medical profession to forget that it is a potent narcotic? How can primary care prescribers feel

“empowered” to not continue these prescriptions? How can we influence secondary care to not use this medicine, or at least ensure that it is used in the right patients for the right length of time?

Oxycodone is essentially an equivalent medicine to morphine – there is no evidence that it has a better adverse effect profile, or a better analgesic effect. Like morphine, it would not be the first choice strong opioid for people with renal dysfunction (fentanyl or methadone are “renally safer”).

Given that oxycodone is considerably more expensive than morphine, and oxycodone misuse is an emerging trend in New Zealand (and an even greater problem overseas), there seems no reason to prescribe oxycodone in preference to morphine, except when morphine is not tolerated. Other strong opioids such as fentanyl or methadone may be appropriate for some patients.

Although not all prescribers will agree with these points, it appears that the ground swell of opinion among General Practitioners is that they do not wish to initiate oxycodone. This is obviously simple to achieve by not writing prescriptions, but two problems remain – how can this message be adopted by secondary care prescribers and how can General Practitioners avoid continuing oxycodone once a patient has begun taking it?

A suggested strategy for managing a patient discharged from secondary care on oxycodone is as follows:

- When the patient presents in general practice after discharge or for a renewal of their prescription, assess their level of pain and consider whether an opioid is still required
- If a strong opioid is not required, step down to a weaker opioid such as codeine or to paracetamol
- If a strong opioid is still required, explain that morphine is equally effective, with a similar adverse effect profile and is the preferred choice of strong

analgesia in general practice

- Remember to prescribe an antiemetic, a laxative and a breakthrough pain dose as required
- Prescribe a short course of morphine and regularly assess pain levels and step down analgesia when appropriate

Changing prescribing behaviour in secondary care is more challenging. This will involve a collaborative effort from organisations such as ours to ensure that responsible prescribing messages are being disseminated across the health sector as a whole. We require the cooperation of our secondary care colleagues to prevent oxycodone being prescribed inappropriately, both in hospitals and in the community.



We value your feedback. Write to us at:
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