LOGIC.
LINKING OPPORTUNITIES GENERATING INTER-PROFESSIONAL COLLABORATION
The Official Journal Of The New Zealand College Of Primary Health Care Nurses, NZNO
Winter 2019 Edition

WINTER & TRAVEL EDITION

TRAVEL MEDICINE EDUCATION

What patients need to consider

WINTER INJURIES

Returning to rugby after injury, snow safety and more

FUNDING IN PHC

HEPATITIS C

DEMENTIA

LOGIC is the Official Journal of the New Zealand College of Primary Health Care Nurses, NZNO.

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Circulation

To full members of the NZNO New Zealand College of Primary Health Care Nurses and other interested subscribers, libraries and institutions.

Editorial Matter

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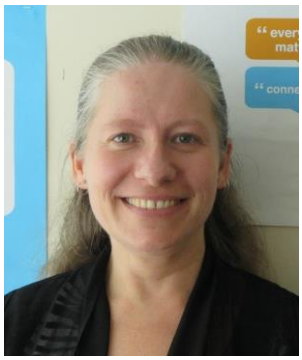
Chair's Report



Celeste Gillmer
Chairperson

Tēnā Koutou katoa

For the past couple of months I attended various meetings on behalf of the College, including ACC co-design workshops and GPLF. I often hear medical practitioners talking to each other, stating that Registered Nurses aren't health practitioners. I wrote an article for NZ Doctor to clarify this misconception and thought I will share it with you, since I know that not all of you will be access those articles.

HEALTH PRACTIONERS IN NEW ZEALAND

New Zealand legislation has changed over the last couple of years. The term "medical practitioner" was changed to "health practitioner" to enable suitably qualified health practitioners can carry out some activities that could previously only be done by medical practitioners.

Eight separate amendment Acts applied the new terminology, replacing the term medical

practitioner with health practitioner as defined by the Health Practitioners Competence Assurance Act 2003. The changes across the eight Acts amended references to medical practitioners to include health practitioners including nurse practitioners, registered nurses and, in one instance, pharmacist prescribers.

The aim of the changes was to recognise the advanced knowledge and skills in the wider health workforce which will improve access to services. The amendments enable competent health practitioners, working within their prescribed scope of practice, to better use their skills for the benefit of the people they care for, colleagues and the health system as a whole (Ministry of Health, 2018).

What is the definition of a health practitioner in New Zealand? Section 5(1) of the Health Practitioners Competence Assurance Act 2003 defines the term "health practitioner" as a person who is, or is deemed to be, registered with an authority as a practitioner of a particular health profession" and the term "medical practitioner' is defined as "a health practitioner who is, or is deemed to be, registered with the Medical Council of New Zealand … as a practitioner of the profession of medicine."

Many health professions are regulated by the Health Practitioners Competence Assurance Act 2003, including Registered Nurses and Nurse Practitioners.

There is still a misconception that "Health Practitioners" only refers to either a medical practitioner (doctor) or a nurse practitioner. All Registered Nurses have a Health Practitioner Index number and they are regulated by the Nursing Council of New Zealand. The nursing workforce is the largest component of our health

system in New Zealand, there are now 58,206 enrolled nurses, registered nurses and nurse practitioners working across New Zealand.

Chief Nursing Officer Margareth Broodkoorn states: "Nurses are often the first port of call for people seeking health care in New Zealand, either in primary care, DHBs or other parts of the health care sector. It's so important to support nurses to deliver the best care they can by boosting their numbers and helping to grow a safe and healthy workforce." (Ministry of Health, 2019).

The changes in legislation has improved access to services for our communities, since they don't always have to wait to see a medical practitioner when another suitably qualified health practitioner is available. For example, a qualified registered nurse is able to issue sick leave certificates, if their employer and the Nursing Council of New Zealand recognise that they are competent and safe to do so (Ministry of Health, 2018).

Many registered nurses are highly skilled with expanded scopes of practice and there is an increase in nurse-led primary health care practices, improving population health in a way that is cost-effective, while also reducing health inequalities.

The traditional models of care are changing and we need to support the highly skilled nursing workforce (nurse practitioners, registered nurses and enrolled nurses) to provide the best possible care to our population and recognise they are health practitioners, supported by the legislation to address health inequalities and improve access to health care.

Stay warm and look after yourself during these cold months!

I hope to see plenty of you at our AGM in Nelson in August.

Celeste

Winter Landscape in Western Southland from Wikimedia Commons

Editor's Report

Yvonne Little

Nurse Practitioner

Welcome to the Winter Edition of LOGIC. You may have noticed a minor change on the front cover, we have changed the title from the old monthly version to one reflecting the season in which the issue comes out, this also reflects what themed articles we will be running with each issue.

Therefore, the March issue becomes the Autumn issue, June becomes Winter, September is Spring and of course December will be Summer. Despite the change in title we still intend to keep to our planned deadline dates for articles coming in and publication dates unless of course circumstances prevent this as happened with our March edition due to the events in Christchurch.

I wish to apologise to those who were looking forward to our Forum in Palmerston North which I have mentioned in previous LOGIC issues, but due to unforeseen circumstances this event did not happen. But be assured the Nelson-Marlborough Forum will be going ahead in August as advertised, we have a dynamic duo of Jill Clendon and Melanie Terry on the ground, already well advanced in the planning – please see the flyer for this in this edition and RSVP to the email address on that flyer if you are interested in attending.

It appears that winter has finally arrived with those lovely crisp mornings and lower temperatures. With that of course our work in PHC goes up a notch, especially with the national shortage of flu vaccines. It is interesting to note that the shortage appears to be related to more people vaccinating which is good to see. The flu season along with the ongoing measles outbreaks will definitely keep us busy.

Many of us will fall victim to one virus or another over the coming months no doubt as our family/whanau, colleagues, patients and general public share theirs, so be sure to take the rest time you need and to keep healthy.

But I hope you are able to spend some time in front of the fire (if you still have one) or snuggled under a blanket or with the heat pump going to read the latest edition of LOGIC.

It's time for those winter pursuits and of course there will be the odd accident or two, so we have included in this issue articles on: Winter injuries and Rugby Clearance to hopefully help you. Other articles include immunisations, Hepatitis C, Pacific Health and many more.

Currently, a lot of our articles are being written by LOGIC committee members but this is your journal and we really need articles and viewpoints from you our members, so please contact us about writing articles, these do not need to be academic in nature or form.

Some of our regular article sections are a bit light on this issue as we have had difficulty securing articles, so if you are working in these areas or know someone who is please contact us, we really need your assistance to secure articles

from as many work areas and regions of New Zealand as possible to give our Journal that inclusive feel. Any article you submit can be used for your Portfolio and towards your Performance Reviews and we as a committee are happy to provide proof for you as needed.

Areas we need your input from are: Mental Health; Diabetes; School Nurses; District Nurses; Aged Care; Palliative Care; Nurse Prescribers; Youth NP's; Tamariki Ora; Oranga Tamariki; Immigrant Health.

Alongside these we would like to know what is going on in your area, do you have group meetings or innovative ideas you would like to share with the rest of your colleagues – is there anyone out there who is working in the Health Care Homes model and would like to tell those of us who are not yet doing this how it works and what it feels like.

We also want to hear about leadership in PHC – do you know someone who inspires you because of their leadership.

And finally, we are all about succession planning. We will often have vacancies appear due to committee members stepping down for various reasons. So, if you are interested in finding out what the roles involve please contact us or come to one of our Forums. You will note that there are some current vacancies and the application forms are available on our website.

Stay warm, stay healthy and look after yourselves.

NELSON – MARLBOROUGH FORUM

For one night only

29th August 2019
Room 1
Richmond Health Hub/PHO Offices
281 Queen Street, Richmond
5.30pm to 8pm

Agenda: Meet and Greet with the NZCPCHN Executive
Speaker/s: Refuge Health and RSE workers
Annual General Meeting
Nibbles provided

Please RSVP to: nelsonmarlboroughregioncphcn@gmail.com by 9th August 2019

Check out the Submit an Event Page under New Zealand College of Primary Health Care Nurses (NZCPHCN)/NelsonMarlboroughRegionForum for updated information

NEW ZEALAND NURSES ORGANISATION
TŌPŪTANGA TAPUHI
KAITIAKI O AOTEAROA

PHCN
New Zealand College of Primary Health Care Nurses
NZNO

RURAL MUSTER

Debi Lawry

Chair, Rural Nurses NZ

In 2017 some rural nurses attended the National Rural Health conference in Wellington. It was felt there was no collective voice for rural nurses working across a variety of settings. Some organisations represented some areas of nursing, particularly Primary Care, but other nurses working rurally did not necessarily fit into that category. So we decided to establish a nurses group where the commonality was rurality.

Initially a Facebook page was established, and from there an executive was formed to progress key projects. The Chair was Rhonda Johnson and the Secretary was Emma Dillon. Executive members came from Hokianga in the north, to Stewart Island in the south. There are rural primary care nurses, rural hospital nurses, an academic who coordinates a rural nursing post graduate paper, and a student nurse. The Facebook group now has over 400 members.

Since its inception Rural Nurses NZ have tried to be inclusive, working collaboratively with other key groups in the rural sector such as Rural GP Network, Rural Hospital Network (RHN) and RHAANZ. We do not charge membership, but do encourage rural nurses to join one of these organisations. As inaugural Chair of the group, Rhonda became a Board member of RGPN. Debi Lawry, the current Chair is on the executive of RHN. These alliances enable rural nurses voices to be heard across primary and secondary rural sectors.

Our first challenge was to improve the data available on the number of rural nurses in New Zealand. In order to progress this aspiration we have written to NZ Nursing Council and eagerly await a meeting with NZs Chief Nurse, NZNC and Health Workforce NZ, which is due soon.

Rural GP Network have assisted us to establish a website, ably led by Cathy Beazley and Emma Dillon from RNNZ. Visit us at www.rnnz.org.nz to find out more about more details. We are also proud of our new logo.

We have been fortunate to partner with Mobile Surgical Services to host some webinars that are relevant to nurses working rurally and remotely. Further webinars are planned.

Our Vision is: A connected New Zealand rural nursing workforce with supported access to education and supervision.

Our Mission is: To support and strengthen rural nursing in Aotearoa New Zealand through the advancement of knowledge, connections and expertise.

For more information or to join our group please visit our website. We look forward to connecting with you.

Hepatitis C- Test, Treat and Cure with 99% success!!

Belinda (Bin) Heaphy

CNS- Community Hepatitis C

Marlborough Primary Health Organisation

Wow. What amazing changes have happened with Hepatitis C (Hep C) treatment in New Zealand and the rest of the world in the past year.

- In the 1990's Hep C had an 11% cure rate.
- From 2000 to 2017 35% cure rate.
- In 2019 **99%** cure rate.

In New Zealand from February 2019 Pharmac has funded the new generation direct acting antiviral medication Maviret (glecaprevir/pibrentasvir) for all types of Hep C. This life changing medication is for 8 weeks, no injections and only three tablets per day.

Unlike previous Interferon based treatment, which had horrendous side effects for 6-12 months, Maviret has minimal side effects for a person; nausea 7.6%, headache 13.2% and tiredness 11.4%.

The other positive feature about Maverit is that it can be safely prescribed in primary care for most people. There are some exceptions such as:

- for people with severe liver disease (cirrhosis)
- some prior treatment failures
- or co infection with Hep B and HIV.

These people need to be treated in secondary care and treatment may be extended up to 16 weeks.

What is Hepatitis C?

Hep C is a blood borne virus that frequently is asymptomatic but over time can lead to liver cirrhosis or more rarely liver cancer (hepatocellular carcinoma).

For those people who have symptoms these are often non-specific for example tiredness, nausea, depression, loss of appetite or abdominal pain.

It also has many other extra hepatic manifestations such as mixed cryoglobulinemia involving the skin, kidneys and peripheral nervous system.

Testing for Hepatitis C

Hepatitis C is initially detected by a Hep C antibody test and if this is positive a Hep C RNA is done. Once a person has a positive Hep C antibody test this result stays positive, even after the person has been treated or spontaneously clears the virus. The Hep C RNA becomes negative at the end of treatment but doesn't confer protection against being re infected.

Who should get tested for hepatitis C?

Any person:

1. whose mother or household member has had Hep C.
2. who has a tattoo or body /ear piercing-especially if unsterile equipment used.
3. who has ever been jaundiced or had

Belinda Heaphy has been passionate regarding Hep C since 1999 when she started a Nurse led clinic at Nelson Hospital, one of the first Nurse led clinics in NZ. She continued to run Nurse led clinics in her position at Nelson Marlborough District Health Board as Clinical Nurse Specialist (CNS) Addictions and Gastroenterology until 2017. Since 2017 she has been the CNS Community Hep C Marlborough PHO, working across Nelson Marlborough.

abnormal liver function blood tests.

4. has shared personal care items such as razors, toothbrushes or needles to get prickles out, that may have come into contact with the blood of an infected person.
5. has ever injected drugs – even once.
6. Who has lived or received health care in South East Asia, India, Middle East or Eastern Europe.
7. Who has had a needle stick injury.
8. Who has been in prison.
9. Who has had sexual contact with a person infected with Hep C.

All people who are Hep C RNA positive should be encouraged to seek treatment for the sake of their own health and to prevent the spread of the virus.

In NZ there are 50,000 people with Hep C - 25,000 people are diagnosed but the other 25,000 do not know that they have it. It is important that we encourage the undiagnosed to get tested and if positive, treated. The World Health Organisation (WHO) has the goal world wide by 2030 of 90% reduction in new cases and 65% reduction in mortality. This can only be achieved by increasing our numbers tested and treated.

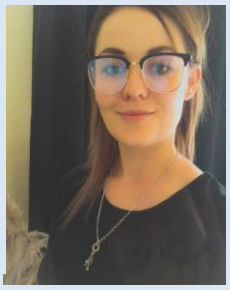
Unfortunately, there can be a perceived stigma and lack of knowledge about Hep C which makes some people reluctant to come forward for testing but many of us can tick YES to at least one of the risk factors on the list.

Dr Debbie Harrison, a Nelson GP, wrote it very well in the Wild Tomato Magazine July 2018 issue “we have all done things in the past which we might regret or wish we had done differently, we are only human. Indeed, the decision-making, impulse control part of the brain does not finish developing until our mid 20’s which is why young people can engage in risky activities without thinking about the consequences. It is easy to be wise after the event, especially years later with our adult brains but we should be forgiving of our younger selves and should not judge others”.

Hep C testing and treatment saves lives. Get tested now. If we work with clients or patients encourage them to be tested.

NETP and Primary Health Care Nursing in a General Practice/Accident and Medical (Urgent Care) Centre

Casey Jamieson is an RN working in a General Practice and Accident and Medical (Urgent Care) Centre in Hawke's Bay. She agreed to write about her experiences as a NetP in her work environments.



What inspired you to become a nurse?

After I finished school, I was completely unsure of which career path I wanted to take. Soon after, I went on to complete my Diploma in Beauty and Body therapy. Initially I thought that after I finished my diploma, I wanted to do nursing to allow me to have a more challenging career within the beauty industry.

However, whilst completing the nursing degree, nursing in itself became a passion. I have always had the desire to inspire and change people's lives, and nursing is seamless for that. As

William Shakespeare once said, "The meaning of life is to find your gift. The purpose of life is to give it away".

Were you on a Net P Programme as a new graduate?

Yes.

My transition to practice was with a busy urgent care practice, and my love for this work grew each day. At the time, the practice unfortunately didn't have a position available.

I went through the ACE recruitment process to apply for a position on the NetP programme within the Hawkes Bay District Health Board.

In the meantime, I was so committed to working in primary care, I tried my luck and applied for a job at The Doctors Hastings. The manager phoned me the next day, and I had an interview. They got in contact with the NetP coordinator and put me on the NetP programme but working in primary care rather than the hospital. It was such a blessing and one that I will be forever grateful for.

How do you think working as a new graduate in primary care has helped you grow your skills and knowledge?

Primary health care covers such a broad range of services. Every day is something different!

You gain confidence with the clinical skills learnt throughout the degree. You also develop many therapeutic relationships, and people have complete trust in you as a registered nurse, even if you are a new graduate. You also learn good clinical reasoning skills and reflective thinking. Effective communication skills are likewise fast learnt, focusing on health promotion and the need for change of behavior in individuals in respect to their health.

What has been your biggest challenge as a new grad in primary healthcare?

I don't think I have faced any challenges as such. Apart from, I guess when suddenly you aren't a student and you're now a registered nurse

providing quality healthcare without another nurse holding your hand. I've had the opportunity to grow my knowledge so much in a small amount of time with the support of so many amazing nurses guiding me. You never stop learning when you are working in the nursing profession, and that's something that motivates me.

What has been the best part about being a new grad in primary healthcare?

Working in primary health care gives you the chance to develop therapeutic relationships and walk with people through their health care journeys. You form a special bond with people during some of the most vulnerable times in their lives. The smallest acts of caring, a listening ear or a kind word have the potential to turn someone's life around.

What was the worst thing?
Nothing! I had completed my transition placement in the same sort of primary health care, so I had a head start. My management and colleagues are wholeheartedly supportive. NetP is also valuable in the fact that it supports you with further learning.

Do you have any regrets in becoming a nurse?
Absolutely not! Being able to give people optimism in the face of adversity is a privilege. Every day may not be wonderful but there is always something wonderful in each day. It was true when my elders told me to find a job I love, and I'd never have to work another day in my life.

Or working in primary healthcare?
No regrets at all. I love primary health care and my work place. Primary health care is somewhere that my heart will always be content.

What are your plans for your career?
For the foreseeable future I would like to stay in primary health care and will look at Nurse Prescribing papers once this year is over.

Maybe much further down the track, I'd like to spend some quality time in paediatrics. I did a five-week placement there and loved every minute. Nursing those in palliative care or oncology is another area that interests me. I walked the cancer journey with my best friend when she was nine years old and was diagnosed with ovarian cancer. I guess that's where the desire came from with Pediatrics and oncology. But first, Nurse Prescribing? I've got many years left in my career yet.

From your experiences what advice would you give student nurses in regards to Net P and primary health care?
Do it. The career opportunities are endless. I feel so fortunate to have secured a job in primary healthcare. With NetP you are also constantly learning, there are study days that you attend regularly throughout the year giving you the chance to upskill and learn further.

From your experiences how can PHC and NetP improve the process for future?
A NetP programme in HawkesBay specific to Primary Health care would be excellent, currently, there isn't one available, and it is mainly Hospital based learning. Myself and a couple of others that have worked in primary health care while on the NetP programme are currently working with our Primary Health Care Organisation (PHO) and will look at being mentors for future PHC NetP nurses. The PHO has been incredibly supportive and our ideas put together will make things better for prospective NetP nurses in PHC.

Following the money: How is general practice healthcare funded?

Annie Tyldesley.

Annie Tyldesley is a member of the LOGIC committee and has over 30 years' experience working in both the public and private healthcare sector. This article is written with information provided by Kim Carter, RN and general practice owner.

The recent changes in funding for the provision of primary healthcare (see Figure 1), has had quite an impact on the provision of services in the general practice arena.

A recent article in the New Zealand Doctor (Taylor, C. 2019) gave some insight into the 'risky business of capitation'. The majority of primary level general healthcare continues to be sourced through general practices and covering the true cost of services is an important part of good business management.

Figure 1: Changes in December 2018

CSC holders eligible for cheaper GP/RN visits ($18.50 adult, $12.50 14-17yrs)

This extend to dependants of CSC holders aged 14-17yrs

ACC will increase subsidies so cheaper visits can be extended to CSC holders and dependants as well

Zero fee's for < 13's extended to < 14's (ACC and general practice)

(Carter, K. 2018)

Where does the funding come from?

Let's start at the top: The Ministry of Health (MOH) allocates funding for health services. The funding for primary healthcare goes to, among others, District Health

Boards (DHB) who then pass it on to Primary Health Organisations (PHOs).

According to the MOH (2019) PHOs:

"ensure the provision of essential primary health care services, mostly through general practices, to people who are enrolled with the PHO. PHOs are funded by district health boards, who focus on the health of their population".

The aim is "to improve and maintain the health of the enrolled PHO population, ensuring that general practice services are connected with other health services to ensure a seamless continuum of care " (MOH, 2019).

When a person enrols with a general practice they are, in fact, enrolling with the PHO with which the practice has a service agreement contract.

Capitation

General practices get capitation funding, through the PHOs, for every person enrolled in their practice. It is a subsidy to reduce the cost of access to general practice and is not meant to reflect the total cost of the service.

The data used to decide on how the public used primary

Figure 2: What are First Level Services?

First Level Services are defined in the contract and include:

- Health promotion
- Health education
- Evidence based screening and assessment
- Early detection and diagnosis of illness
- Urgent medical and nursing services
- Coordination of care

(Carter, K. 2018)

healthcare every year was collected before 2003.

The provision of capitation funding means that each practice can reduce the fee for service to whatever their standard charge is. However, this funding is for the provision of first level services only (see Figure 2) and the current funding covers an average of 2.2 consultations per person per year.

Practices cannot reduce the fee for the 2-3 annual visits that capitation was based around. They are required to reduce the fee for all relevant consults.

So, in effect, after a person has used their 2.2 visits, they continue to receive subsidised first level service healthcare. In some instances, they will receive other services at the reduced rate.

On top of the basic capitation funding, very low-cost access practices receive extra money for each person enrolled, as do rural practices.

With the introduction of lower costs for Community Service Card (CSC) holders, the intention is that the funding will follow the patient wherever they access healthcare in NZ. So, a CSC holder should be able to access subsidised healthcare anywhere in New Zealand.

How much is the capitation funding worth?

The amount of annual capitation funding is dependent upon the age of the person enrolled, see Figure 3. The differences in amounts are intended to reflect the amount of care each age group will require (Carter, 2018) (figures correct as at August 2018).

Services not covered by capitation.

There are a range of services provided by general practices which are not first level services and people may be required to pay the full cost of accessing those services.

This includes, but is not limited to: liquid nitrogen treatment, excision of lesions, removal of sutures or staples inserted following non-accidental health care interventions in another healthcare environment, driver's licence medicals, insurance medicals, travel health consultations, E.C.G recordings, etc.

Funded scheduled immunisations and ACC consultations are funded separately from capitation: Immunisations by the MOH; accidents by ACC, if they accept the claim.

Services to Improve Access funding pool (SIA).

In addition to capitation funding, there is a flexible funding pool, the SIA, which is intended to support the provision of services which will improve access to healthcare.

Available to all PHOs, SIA is intended to reduce inequalities among those populations that are known to have the worst health status, e.g. Maori, Pacific peoples, those living in NZ Dep index 9–10 decile areas, etc. In some areas this funding is allocated directly to a Maori health clinic.

Figure 3: Capitation Funding		
Enrolled person		Annual Rate $
Age Group in years	Gender	
00-04	F	416.89
	M	438.92
05-14	F	131.96
	M	123.52
15-24	F	121.76
	M	67.02
25-44	F	107.00
	M	69.17
45-64	F	146.55
	M	109.46
65+	F	252.56
	M	211.80

High User Health Cards.

Some patients are eligible for High Use Health Cards (MOH, 2018) which enables them to have reduced costs for visits. To qualify, they must have had 12 general practice visits in the past year for similar health concerns. This does not include immunisations or ACC visits.

Performance Funding.

The PHOs also manage performance funding, known as integrated Performance and Incentive Framework (iPIF), which funds certain health initiatives, e.g. smoking cessation, cervical screening, breast screening, etc.

Working together – one team.

In 2009 the Government released its Better Sooner More Convenient approach to integrated health care across primary and secondary health providers, with the patient rather than the institution as the centre of service delivery.

DHBs, PHOs and general practices now work together in alliances to meet the health needs of people within their district.

Alliancing is one approach that the New Zealand health system can use to efficiently allocate scarce resources through building communities of interest across more than one practitioner or organisation.

The aim is to promote a more seamless patient journey across community, primary, and hospital sectors; greater use of primary and community care; and care being provided closer to the patient's home.

One of the outcomes of this is that patients are more often referred to their general practitioner for follow-up visits which have no funding allocated.

Discussion.

The data used to calculate general practice usage was collected over 16 years ago; at a time when technology was not as precise as it is today. The data was not well collected, probably did not reflect the actual utilisation of general practice and it certainly does not reflect the utilsation today.

If you take a little time to reflect on what healthcare was like then, I'm sure you will agree that a great deal has changed. Shorter hospital stays; more care in the community; increased population; greater recognition of the health effects of lifestyle choices, etc.

In 2003 the population of NZ reached 4 million, the population today is in the region of 4,926,400 (New Zealand Government, 2019).

Taylor's article in the New Zealand Doctor (2019) pointed out clearly that some general practitioners are walking a fine line between providing essential healthcare, and having an income which is enough to keep the business going.

This may well explain why many general practitioners are now working for other healthcare

organisations; an approach which enables them to continue to provide services without the headache of balancing the books.

As the work done in general practice increases, there will be more opportunity for nurses to work in this varied and challenging environment. However, in order for employment, and services, to be affordable, funding that reflects the true cost of provision is needed.

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ACC Winter Injuries

Erica Donovan

Injuries are common occurrences and are seen in many primary health care nursing areas including General Practices, Schools, Prisons, to Rest Homes. However, winter brings with it unique circumstances such as rugby, snow sports as well as the infamous slippery paths around the home.

For some winter is all about sports, both on the sports field and the ski field. But our role as nurses isn't just to help with assessment and treatment when these injuries occur, it is also about providing prevention education to players, coaches and parents.

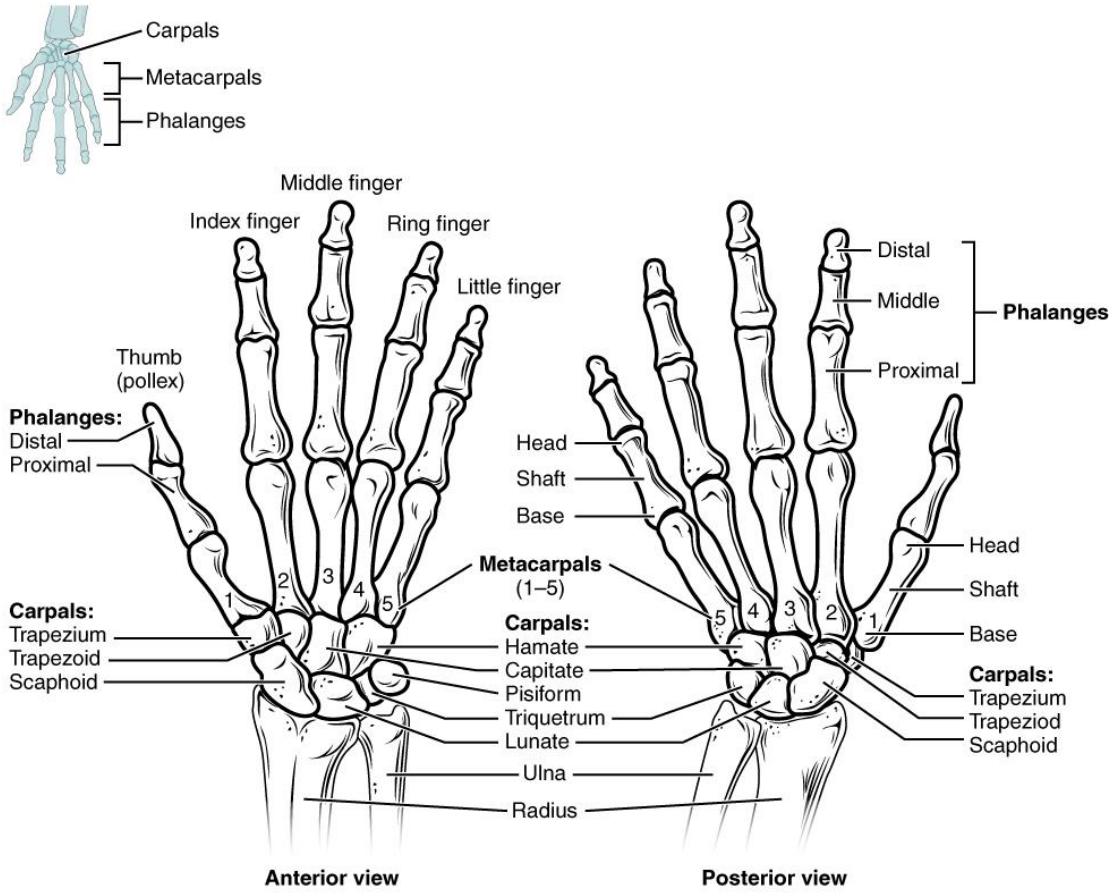
Given the fact that a fifth of traumatic brain injuries occur during sport and recreation (Accident Compensation Corporation [ACC], 2019) there needs to be understanding about the symptoms of these injuries for those who coach and assist others with recreation.

For head injuries always remember the ABCs (And DEFG). Although the majority of head injuries are self-limiting, some do result in neurological disorder that can compromise airway, breathing, circulation and neurological functioning. Use of the ABCDE framework allows practitioners to assess patients across the lifespan with an easily understood algorithm that prioritises life threatening issues (Thim, Krarup, Grove, Rohde, & Løfgren, 2012, p. 117-119).

One of the most common sports related questions I used to get asked in clinic was "when can they return to playing their sport? ". See later in this edition for a story about guidelines about returning to rugby post a head injury.

Orthopaedic injuries are common for those hitting the ski fields. One such injury is the FOOSH (fall on outstretched hand) commonly associated with putting down your hand when falling. One of the common fall-outs is a fracture of the scaphoid bone, which may not always be visible on initial x-ray. Other wrist fractures that may be seen are the distal radius or ulnar. ACC Reports receives around 13,000 reports of ski field injuries, each year costing over $20 million. Things that can be done to reduce the risk of snow sport injuries include protective equipment and ensuring that people pace themselves. There is evidence to support the wearing of wrist guards for snow boarders to decrease the risk of wrist fractures (Russel, Hagel & Francescutti, 2007).

Mountaineering also represents a recreation pursuit that can lead to injury, with a Mountain Safety Council report showing the vast majority of injuries were soft tissue. The most common site of injury were knees at 17% of injuries, next being hands/fingers/wrists at 12% and neck/head injuries representing 11% of injuries (p.67).



We can't forget the infamous slipping, tripping and falling. While this can happen at any time of year, winter can also bring with it snow, ice and rain which can lead to many opportunities to take a tumble. Falling is the most common injury ACC sees, with under 19s being the most common age group and women slightly outnumbering men. While the young may be outpacing others, the Elderly population tends to have higher severity falls and require more medical input (ACC, 2019, para 4).

Russell, K., Hagel, B., & Francescutti, L. H. (2007). The effect of wrist guards on wrist and arm injuries among snowboarders: a systematic review. *Clinical Journal of Sport Medicine*, *17*(2), 145-150.

Accident Compensation Corporation. (2019). *Traumatic Brain Injuries (TBI).* Retrieved 23 April, 2019 from Accident Compensation Corporation website: https://www.acc.co.nz/preventing-injury/traumatic-brain-injury-tbi/?smooth-scroll=content-after-navs

Accident Compensation Corporation. (2019). *What's tripping us up? How Kiwis are falling over.* Retrieved 23 April, 2019 from Accident Corporation website: https://www.acc.co.nz/about-us/news-media/latest-news/whats-tripping-us-up-how-kiwis-are-falling-over/

Mountain Safety Council. (2016). *There and Back. An exploration of outdoor recreation incidents in New Zealand.* Retrieved from: https://www.mountainsafety.org.nz/insights/there-and-back/

One Member One Vote Fact Sheet

One member one vote information May 2019

Introduction

Changes to the NZNO constitution affecting voting processes on constitutional and policy remits came into effect in 2019. These changes were ratified at the NZNO AGM on 19 September 2018.

Before these changes, voting on constitutional and policy remits at the AGM was done by delegates/representatives from the following NZNO groups: Regional Councils; the Colleges and Sections; the National Student Unit; Te Rūnanga; the Membership Committee; and Te Poari. Individual financial members of NZNO not involved in any of these groups did not have the right to vote.

Changes around voting

A new Clause 29 has been added to the Constitution which states that each financial member will now be entitled to one vote. Voting will take place online (or by postal ballot where necessary). Results of voting will be announced at the AGM, but voting will no longer be done by delegates/representatives alone at the AGM.

The affected clauses are:

- Clause 25.3.3 – The business of the AGM shall be to: receive the outcome of member decisions to policy and constitutional remits
- Clause 29 – Voting for constitutional and policy remits (***new***)
- Clause 29 – Voting at AGM (now Clause 30)
- Clause 30 – Alterations to constitution and policy remits (now Clause 31).

The original Clause 29 has become Clause 30. Clause 30 has become Clause 31 and so on.

Why the change?

The 'one member one vote' system is to reduce variable member consultation. For example, one delegate/representative could have several votes counted depending on the number of groups they belong to, with many members not being consulted prior to voting or having input into decision-making. Also, larger Regional Councils representing more members had a stronger voting power compared to those from smaller regions, yet voting decisions at the AGM were made by a handful of delegates/representatives.

Enhanced democratic process

The new system enhances NZNO's democratic process by allowing every financial member to have the right to vote. It is also hoped the new process will make voting more visible to the wider membership and encourage greater engagement and involvement.

This has been a matter of concern to NZNO for some time and the changes result from a working group that has consulted widely to develop a 'one member one vote' strategy.

Summary: important points to note.

- Voting on constitutional changes and policy remits will now take place by ballot via electronic or postal voting before the AGM, rather than at the AGM. Results of member voting will be announced at the AGM.
- This means debates over remits will no longer occur at the AGM. Instead, it will be the role of delegates and representatives to discuss issues with their constituency base in an advocacy role as remits are developed. This will play an important role in member engagement, participation and decision-making.
- Member votes cannot be changed once they are cast.
- The process and timeline (see below) for submitting remits have not changed.
- The role of the Remit Committee includes identifying constitutional remits which affect Te Rūnanga and/or checking their consistency with Ngā Ture. Such remits will be presented for endorsement at Hui ā-Tau before being presented to the AGM. In practical terms this means before being voted on by financial members through the 'one member one vote' system.

The importance of members/groups consulting when developing remits

There will no longer be opportunity to discuss/amend remits at the AGM, so it will be important to share remits in development (e.g. with other regions, Colleges and Sections, Te Poari, the National Student Unit) so they are well-understood and better agreed-to before they come to the Remit Committee. As mentioned above, delegates and representatives should be essential to this.

During its considerations, the Remit Committee may ask members or groups with similar remits to consult together and consolidate them.

Remit process draft timeline 2019

14 March (not less than six months before AGM)	Remits open – notice of AGM sent to members
10 May (four months before AGM)	Remits close
13-31 May	Remits prepared by the Remit Committee Remits sent to Te Poari for its special Hui-a-Tau (AGM) review process
21 June (12 weeks before election day)	Notice of Board election; call for nominations issued to members
19 July (not less than two months before AGM)	AGM agenda and remits issued to all members Board nominations close
7 August (not less than six weeks before AGM)	Voting on remits and Board nominations opens
13 September	Voting on remits closes 12 Noon
17 September	NZNO AGM

Preparing a remit

A remit is a statement submitted for consideration that seeks change to NZNO policy or to its constitution. Remits are vital to our democratic process and should be thought through carefully. If

you are considering a remit, please be sure to fully understand the policy or part of the constitution you would like to change.

A step-by-step guide to preparing remits (https://tinyurl.com/y54jau67) and a remit template (https://tinyurl.com/yxj6rdrl) are available on the NZNO website. Please follow the advice in these documents carefully to ensure your remit submission goes smoothly. Keep it short and make sure it is written clearly.

It is particularly important that Te Rūnanga is consulted about all proposed remits, especially when those remits may impact on Te Rūnanga.

Remits are usually proposed by Regional Councils, Colleges and Sections, Te Poari, the Membership Committee and the National Student Unit (member groups). However, individual members wanting to propose a remit are encouraged to approach these member groups, which may decide to develop a remit proposal on the suggested constitutional or policy change.

Remits close on 10 May.

Voting

Voting on remits will open on 7 August and, closer to that time, members will be sent more information about how to vote online. In the meantime we have posted a mock-up of the online voting form on our website so you can familiarise yourself with it. This mock-up contains just five sample constitutional and five sample policy remits. It could be that the actual voting form presented to you at the time has more remits for you to vote on.

The online voting paper will be in two sections and you will be asked to vote in each one:

1. Board member elections
2. Remits (constitutional and policy)

Also closer to the time of voting we will be sending you an electronic booklet containing all of the remits to be voted on in full. In our next communication we hope to send you an example of this booklet, again to familiarise you with the process.

Finding out more

Communications to members about One Member One Vote are available online at: https://www.nzno.org.nz/membership/one_member_one_vote_2018.

Travel health

Erica Donovan

Sometimes you just get bitten by the travel bug and want to get away for a while. If holidays consist of overseas travel it can good for patients (and us ourselves) to consider health.

Patients may enquire what they need to in terms of vaccinations and medications to take with them overseas. However, providing straightforward advice isn't always easy as it can depend on where they're heading to, what activities they're planning on doing, and in what areas they're staying. Some vaccinations may be as common as an influenza vaccine, where as if they are travelling to certain countries, they may be refused entry if the person cannot provide evidence of vaccination.

Patients also need to consider if they have enough of all their medications and if these require documentation from their Doctor. From working at a walk-in clinic, I can tell you there are many people who don't consider how much medication they need while they're away, which can lead to costly Doctor's visits.

And speaking of what can be costly – getting sick overseas. It's always important to remind people to consider travel insurance. We don't like to think that we'll spend a holiday in hospital or sick in a hotel, but the reality is that it happens.

If you want to learn more about travel health, Pharmac has a great series of videos around all things travel including vaccinations, medical kits, diseases patients need to be wary of when travelling and travel related injuries.

Travelers can also head to the Ministry of Foreign Affairs and Trade website which as an area dedicated to staying heathy while travelling.

When providing travel information, it is also important to remember the basics – safe sex, safe drinking advice, being sensible about hand hygiene and sun safety.

Ta'u Island, National Park of American Samoa: https://www.flickr.com/photos/usinterior/9109117816

PACIFIC HEALTH: Successful Launch of Pacific Health Research Partnership, Porirua

Pacific Health Plus, Maurice Wilkins Centre, Fiso Group and Pacific Health Research

Pacific Health Plus

Pacific Health Plus, based in Cannons Creek, Porirua, was established as a subsidiary of the Fiso Investment Group in January 2019. It was formerly known as Porirua Health Services (PHS) which had been operating for 10 years but during 2018 came under severe financial pressure. As a result, the Board of PHS embarked on a formal bid process to identify new owners. This was conducted by legal firm Gibson Sheat and accountancy BDO Spicers with five bids submitted. The Fiso Investment Group was notified as the successful bidder in December 2018 and the new entity, Pacific Health Plus (PHP), was set up. Pacific Health Plus is a primary care provider to 2000 local residents who are mainly of Pacific descent. Further information can be found here:

http://www.scoop.co.nz/stories/AK1811/S00664/fiso-investment-group-set-to-rescue-pacific-health-services.htm

http://www.scoop.co.nz/stories/GE1811/S00077/fiso-group-ltd-preferred-bidder-for-pacific-health-services.htm

Maurice Wilkins Centre

www.mauricewilkinscentre.org

The Maurice Wilkins Centre is a national Centre of Research Excellence that involves over 400 of New Zealand's top scientists and clinicians from Universities, CRIs and independent research organisations across New Zealand. The Centre harnesses and links New Zealand's outstanding expertise in biomedical research to develop cutting-edge drugs and vaccines, tools for early diagnosis and prevention, and new models of disease.

Background on the consortium focused on Māori and Pacific health research

The Maurice Wilkins Centre (MWC) is working in partnership with The Moko Foundation led Waharoa Ki Te Toi research centre based at Kaitaia Hospital and the Ngāti Porou Hauora led Te Rangawairua o Paratene Ngata research centre based in Te Puia Springs hospital. Both these centres were established in 2018 and with MWC support aims to develop capacity and become sustainable and independent health research centres based in these regional areas.

Relevant background information can be found here:

http://www.mauricewilkinscentre.org/news/new-insights-into-diabetes,-obesity-risk-among-polynesian-people.aspx

http://www.mauricewilkinscentre.org/news/new-research-centre-waharoa-ki-te-toi-officially-opens-in-far-north.aspx

http://www.mauricewilkinscentre.org/news/te-rangawairua-o-paratene-ngata-research-centre-opens-on-east-coast.aspx

http://www.mauricewilkinscentre.org/news/mwc-and-ng%C4%81ti-porou-hauora-join-forces-to-tackle-metabolic-disease.aspx

Useful statistics

- The median wealth of $12,000 for Pasifika people remains the lowest of any ethnic group, twelve times lower than European and four times lower than Māori (StatsNZ 2016)
- Hospitalisation rates for Pacific people are about double that of the general population; the proportion of Pacific people with diabetes is twice that of everyone else - and that rate is rising; Pacific people are eight times more likely to be admitted to hospital with rheumatic fever than the rest of New Zealand (www.health.govt.nz/system/files/documents/publications/ala-moui-health-care-utilisation-dec18.pdf)
- Almost half of all Pasifika preschoolers in New Zealand live in crowded housing and have the highest rate of rheumatic fever
- Pacific children have an increasing rate of obesity directly linked to deprivation
- The Pacific population are the fastest growing group of young in New Zealand (http://www.mpp.govt.nz/library/policy-publications/contemporary-report/)

About Fiso Group

The Fiso Group (FIG) is owned by John Fiso and is a commercial/business arm of the Fiso Family Trust. The Fiso family were one of the earliest Pacific families to come to New Zealand in the early 1950's. The Fiso Investment Group currently has interests in health and the wellness sector, overseas investments in horticulture, hospitality, infrastructure, commercial and residential property. Through Pacific Health Plus, FIG sees the opportunity to provide capable, competent, skill-based leadership in the Porirua region to enhance and build capacity and excellence in the health care provision to the Pacific and wider community in Porirua. FIG is seeking further investment and partnerships opportunities to contribute to solutions for economic upliftment for Pasifika in New Zealand.

11 April 2019

120 people gather in the heart of Porirua to hear about how they can be part of changing lives in Pacific communities

Last Friday, a group of over 120 people gathered on a cold, blustery Autumn night in a hall above a burnt-out pub on Bedford Street in Cannons Creek, Porirua, to hear about a ground-breaking project to change health outcomes in one of the neediest Pacific communities in New Zealand.

In a 'first', the renowned research centre, Maurice Wilkins Centre, hosted by the University of Auckland, will team up with the only Pacific owned & governed health service in the Wellington region, Pacific Health Plus - literally based on the street below in Cannons Creek - to battle very significant health problems faced by Pacific people.

PACIFIC HEALTH **PLUS**

PHP BRAND LAUNCH 7.4.2019

8909 PHP Launch Group Shot

8886 PHP Launch Group Shot

8925 PHP Launch Group Shot

8905 Isabella Mapusua
Rosie Doughty

8920 Tia Vanilau
Kailua Faafoi
Dr Patricia Bassett
Dr Esela Nata

9009 Tanuvasa Ioane Siauvao,
Reverend Perema Leasi
Dr Ofa Dewes

8950 Reverend Perema Leasi
Chairman PHP Fiso John Fiso
Dr Rosemary Hall
Professor Peter Shepherd
Mayor Mike Tana
MP Hon Kris Faafoi
MP Paul Eagle

8973 Shelley Addison
Dr Ofa Dewes

8971 MP Paul Eagle
Chairman PHP Fiso John Fiso
Mayor Mike Tana
MP Hon Kris Faafoi

9004 Kitiona Tauira
Rosie Doughty
Isabella Mapusua
Chairman PHP Fiso John Fiso
Dr Esela Natano
Dr Patricia Bassett
Dr Rosemary Hall
Kailua Faafoi

8991 Mr Conor O'Sullivan
Dr Ofa Dewes
Dr Troy Merry
Professor Peter Shepherd
Chairman PHP Fiso John Fiso
Dr Rosemary Hall
Dr Donia-McCartney-Coxon
Professor Emily Parker

8931 Pacific Health Plus and
Maurice Wilkins Centre
signing the MOU.

The project will look to the community to further ground-breaking research which has revealed that Pacific and Māori people have a gene which predisposes them to heart disease, diabetes and obesity and also to study youth to track impacts of sugar.

Everyone in the room was buzzing to be part of something which will draw attention to Pacific needs with real tangible outcomes and ways to improve quality of life and life expectancy.

Speaking to the excited and expectant group was an impressive line-up of VIPs:

- John Fiso, chair of the Fiso Investment Group and Pacific Health Plus
- Professor Peter Shepherd, Deputy Director of the Maurice Wilkins Centre
- Hon Kris Faafoi, Member of Parliament for Mana
- Mayor of Porirua, Mike Tana
- Paul Eagle, Member of Parliament for Rongotai
- Dr Rosemary Hall, Endocrine, Diabetes and Diabetes Research Centre, Capital & Coast District Health Board
- Pastor Teremoana Tauira Maka, Pacific Health Plus Advisory Board, Pastor of the Victory Church
- Reverend Perema Leasi

Also, in attendance was the team from the Maurice Wilkins Centre; representatives from health and social service providers in Porirua; significant church leaders; members of the Cannons Creek community and Pacific Health Plus board members.

Pastor Teremoana, as the first speaker of the evening, explained how Pacific Health Plus, the medical centre in Cannons Creek (previously called Porirua Health Services) had been servicing the community for 10 years but acknowledged that the time had come to take the service to the next level, and that recent investment by the Fiso Investment Group will allow this.

Mike Tana, Mayor of Porirua said the evening was a 'celebration of Porirua and Pacific Health Plus and thanked everyone for their 'love of Porirua' and how this next step with a new and meaningful research project was a positive one for the area with lives to be changed for the better. Mr Tana said that self-determination is the best way forward for communities and this project - 'for Pacific by Pacific is an awesome example of this'.

Hon Kris Fafooi, MP for Mana, acknowledged John Fiso by saying how since the Fiso Group came in to help Pacific Health Plus he had seen 'nothing but action', and the speed with which the partnership with Maurice Wilkins was established shows commitment to a community. Minister Fafooi also thanked the Maurice Wilkins Centre for recognition that 'for Pacific by Pacific' was the most effective way forward.

John Fiso, chair of the Fiso Group and Pacific Health Plus, thanked the VIPs in attendance and those in the room who had shown goodwill and had helped.

Mr Fiso acknowledged the importance of data as part of properly understanding problems and determining solutions and that self-determination was critical to the data being used successfully - "with research owned and delivered by the people who will benefit from the outcomes to ensure integrity of the data".

"This is a milestone for Pacific Health Plus - a project which will bring real change," said Mr Fiso. "However, we need more debate about solutions for Pacific people and we cannot look at health in isolation - we need to factor in housing, employment and education as part of the real solution.

"We will seek further partnerships as a way forward - but we recognise that building trust and confidence through successful delivery of our projects is key to this," said Mr Fiso.

Professor Peter Shepherd, Deputy Director of the Maurice Wilkins Centre commented on what a privilege it is to work with Pacific Health Plus. He explained how Professor Maurice Wilkins, who the Centre is named after, was a New Zealander who won the Nobel Prize for Medicine, and that for Professor Shepherd, the centre's name signifies the potential for New Zealand to use scientific research to achieve better outcomes for its citizens.

"It is time to break boundaries and work as one to change the health landscape for Pacific people in New Zealand," said Professor Shepherd. "And we are not going to change the world from our ivory towers behind university walls - but by working in the community as partners.

"We have to move fast, we can't waste time," Professor Shepherd said. "We cannot assume that because medicine is tested on people in the US that it will work for our Māori and Pacific communities - we must look at how genetics influence this. We also need to harness links schools, communities and education to help achieve better outcomes.

"I am excited about the opportunity Pacific Health Plus provides for the community to be part of finding the answers and creating the solutions. The fact we are here tonight opening a cutting-edge research centre above a burnt-out pub that sits beside a red stickered building in this very needy area of Wellington is symbolic of what Pacific people face - and the Maurice Wilkins Centre wants to be part of changing that and helping the community reach the heights it deserves."

Dr Rosemary Hall said that Pacific people, who have highest rate of diabetes in NZ, had been failed and their needs were not being met. "We need to better understand the reasons for different rates of diabetes within different groups and see the situation in context of the bigger picture. Having evidence, from research, and having Pacific lead this is critical," Dr Hall said.

Further information on the Pacific Health Plus and Maurice Wilkins Centre research partnership is below in the Editor's notes.

The Maurice Wilkins Centre is a national Centre of Research Excellence that brings together over 400 of New Zealand's top scientists and clinicians from all over the country.

Pacific Health Plus is a primary healthcare service in Cannons Creek, Porirua, and is the only Pacific owned and governed healthcare service for Pacific people in the Wellington region. It services over 2000 people in the Cannons Creek community.

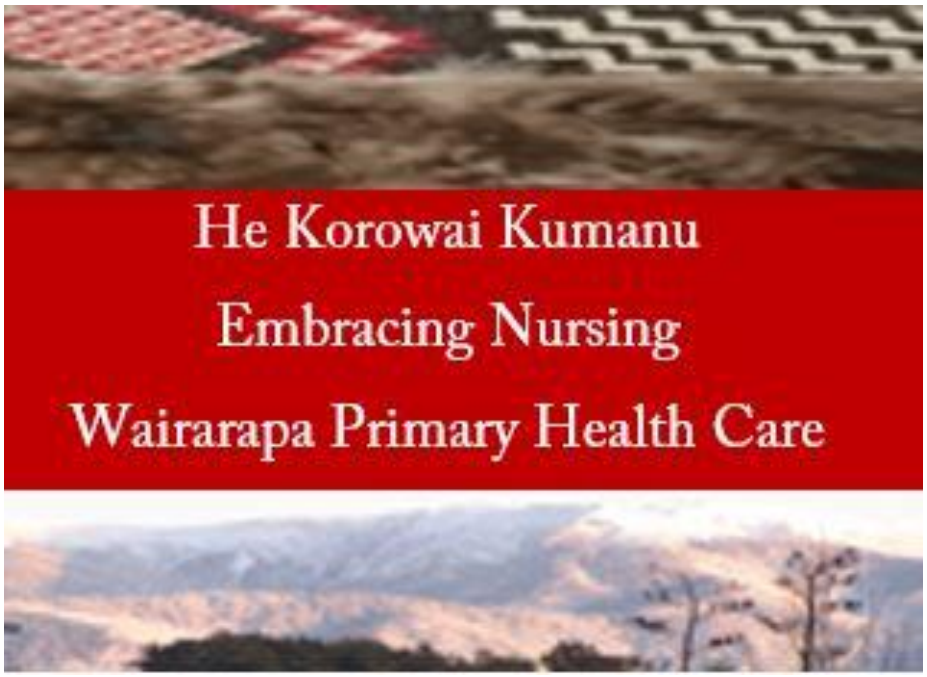
For more information:

Contact: Ruth Lavelle-Treacy, Director, Assegai, 021 104 6909, ruth@assegai.co.nz

He Korowai Kumanu

(Wairarapa Primary Health Nurse Reference Group)

Sherry James (Chairperson)



The Wairarapa Primary Health Nurse Reference Group was established approximately fifteen years ago. The group was first established by Trish Wilkinson, under the umbrella of the Wellington group. Trish arranged the inaugural meeting and initially invited primary health care nurses. The membership for this group was open to any nurse delivering, or supporting delivery of primary health care in the Wairarapa Region. The initial Terms of Reference (TOR) 2013-2014 were created with a vision of the group to strive to achieve better health for all. Developing primary health care nursing leadership, knowledge and encouraging collaboration to better meet current health demands, within the challenging health environment.

The purpose of this group was to promote quality safe care, improve equity and accessibility to health services within the Wairarapa. Some of the initial strategies were to discuss local, regional and national issues of interest and their relevance to service provision in the Wairarapa. Providing integrated clinical leadership, positive learning environment, professional development and collaborate our shared knowledge for primary health nurses in the Wairarapa. Also, to contribute to the development of primary health nurses' roles within the health professional interdisciplinary team and disseminate strategic, professional or educational information.

The TOR has been re-developed since the launch of the original TOR, developing a different focus each time. These changes now include involving primary/secondary health nursing services; to Improve communication and facilitate access to information to support shared care; identify and consider opportunities that exist across primary/secondary care to enhance the stakeholder experience (stakeholders are considered to be individuals, families, community collectives, NGO, local government and cultural governance) and to promote achievement of national and regional goals including but not limited to Wairarapa DHB strategic goals, Central Region Regional Service Plan, Annual Plan Wairarapa, Tehei Triple Aim and the Maori Health Plan.

One of our members organised our group to be renamed to 'He Korowai Kumanu' by the late Aunty Flo Reiri, Ngaitahu descent. Aunty Flo was well known in the region for her expertise in weaving korowai (cloaks). She lived in the Wairarapa with her husband of

Ngati Kahungunu descent and her children remain in the Wairarapa region.

The operational matters involve monthly meetings, items for agenda are invited from all participants and the agenda to be distributed at least one week before the meeting. The Chair role is rotated within the committee. The group is made up from nurses across primary health care which involve Clinical Nurse Specialists in primary and secondary health care, Practice Nurses, Nurse Practitioners, Nurse Practitioner Candidates, Nurse Educators, Public Health nurse and nurses in health management roles.

In 2017 we ran a sexual health training day on a Saturday. We invited all primary health care nurses locally. A woman presented her pilot programme in sexual health, which was looking to be developed around New Zealand. We also had a variety of speakers from the region. There were keynote speakers with presentations from rape crisis, Stopping Violence service and a Nurse Practitioner specialising in Sexual Health. We had a reasonable turnout of nurses, with a good feedback for their learning from this training day.

Our meeting in September 2018 involved inviting the manager from the Wairarapa PHO to discuss a number of topics regionally. The nursing workplace is changing in primary health care and as nurses we need to be flexible and adjust accordingly to the ever changing environment. One of our key objectives was to find out where there are gaps regionally in primary health care, in order to assist to close these gaps.

Our next meeting will involve a brainstorming session amongst the members of the group to develop a strategic plan as we prepare for the future of evolving nursing practice.

Well Child/Tamariki Ora review

This year will see the Well Child/Tamariki Ora programme undergo a review process, and your feedback as primary healthcare nurses is valuable. It's important that there's input from those who are on the ground working with families and delivering the programme.

The review began in March with a Auckland symposium and soon the group will move on to analysing the data and evidence around the issues. One aspect of the review will explore how the programme can best serve Maori and Pacific communities and reduce health disparities. There is also a review on funding and the schedule of Well Child/Tamariki Ora visits.

Anyone with comments or queries can contact Deborah Woodley **(**Deputy Director-General Population Health and Prevention) on wcto@moh.govt.nz.

Plunket Update: Erica Donovan

Members are currently in bargaining at time of writing, with safe staffing being one of the issues at the forefront of negotiations. We wish the negotiating team the best of luck and hope we will have some updates on the outcome soon.

Travelling for fun or business: Annie Tyldesley looks at some basic information that we, and our clients, need before setting off on our travels.

Adventures abroad, or even at home, are some of the most enjoyable things we can do. Whether it's for fun or business, no one wants to end up unwell, spend time in a foreign hospital or worse.

There are a number of on-line data bases which help healthcare professionals find the most up-to-date and specific information on travel health issues (see Figure 1). Some of these can be used by members of the public.

Figure 1: Travel health websites

http://www.traveldoctor.co.nz/

https://www.health.govt.nz/

https://worldwise.co.nz/

http://www.holidayhealth.co.nz/

https://www.safetravel.govt.nz/

https://wwwnc.cdc.gov/travel

Although each destination may have its own specific risks, there are some general ground rules for travel which fall into five areas of concern.

SUN AND HEAT SAFETY:

Sunburn and heatstroke, or frostbite and hypothermia, would really spoil a trip. Here is some general good advice:

Dress for the weather: In hot destinations: loose clothing, hats with wide brim, light coloured clothing. For the colder climates: appropriate warm clothing, hats, gloves and boots or footwear.

Limit exposure to the sun. Use broad-spectrum sunscreens, with a sun protection factor (SPF) of at least 30. Sunglasses need to provide protection against UVA and UVB rays.

Some anti-malaria medications can increase the skin's sensitivity to sun and decrease the amount of time it takes to burn.

Water, sand, concrete and snow can reflect UV rays and increase their effect. Protection is needed even on cloudy days, when swimming, and while skiing.

Overexposure to UV rays, causes sunburn. Though usually temporary, sun damage is cumulative and exposure through life can develop into serious long-term health effects, including skin cancer.

Heatstroke risk is increased with sunburn and the symptoms can be similar to it. It is important to be aware of both, so that the appropriate treatments can be sourced. (see Figure 2).

Stay hydrated: drink plenty of cool liquids, especially water, before you feel thirsty to prevent dehydration.

So, what drinks are safe to have?

Figure 2 **Heat Stroke**	**Sunburn**
Dizziness and light-headedness Throbbing headache Lack of sweating despite the heat Red, hot, and dry skin Muscle weakness or cramps Nausea and vomiting Rapid heartbeat, which may be either strong or weak Rapid, shallow breathing Behavioural changes such as confusion, disorientation, or staggering Seizures Unconsciousness	Pinkness or redness Swelling Pain, tenderness and itching Skin that feels warm or hot to the touch Small fluid-filled blisters, which may break Headache, fever, nausea and fatigue if the sunburn is severe **NB: Seek medical attention if symptoms are severe, regardless of cause.**

DRINKS:

Many people know to be aware of finding safe water in developing countries. However, gastric disease outbreaks can also happen in countries similar to our own.

Drinks can also be spiked with drugs, so the following is good advice:

It is usually safe to drink fluids from bottles or cans which have been factory sealed.

Any container that is not factory sealed may contain microbes or may have been spiked.

Tap water should not be used for teeth cleaning. Aquatabs can be used to treat tap water and make it safe for consumption. See http://www.aquatabs.com/home/market-categories/travel-camping/.

Carbonated drinks that are still fizzy indicate that the bottle has not been tampered with.

Drinks such as coffee, tea or milk, served hot and steaming, are generally safe and people can let the drink cool before drinking. Luke-warm drinks may contain microbes so should be avoided.

Cold additives to hot drinks, such as milk, cream or cold water, should come from a sealed container. Lemons need to have been washed in clean water before use.

The alcohol in most liquors is enough to kill microbes. However, for mixers people need to stick to the above guidelines and avoid ice – it may be made from local tap water.

Beer and wine from sealed bottles should be fine.

Pasteurised milk from sealed containers is safe but watch out for milk or cream from open containers, or that has been sitting at room temperature. Those microbes may have made a home in them.

FOOD:

When it comes to food, our safety is literally in the hands of the person who cooks it. If their hands are clean, the food probably is also.

Hand washing after visiting a toilet is key to healthy food preparation. But, how do we know they have clean hands? The short answer is, we don't.

High heat kills the microbes that can cause travellers' diarrhoea. So, food that is cooked just before serving and eaten hot is generally safe.

Food which is cooked and left to cool, such as in a buffet, is a breeding ground for microbes.

Dried foods are generally considered safe to consume as most microbes need moisture to multiply. So, bread, potato chips, cereals, etc., are okay, but don't forget that the milk with your favourite cereal should come from a sealed container.

As with drinks, foods in factory-sealed containers, e.g. canned tuna, etc, are safe as long as it wasn't handled once opened by a person with contaminated hands.

Figure 3 has tips on preventing of illness, and the spread of it while travelling.

BITES:

Whether it is from a bug or an animal, bites can cause pain and distress for travellers. Bites can occur when out and about, at dusk and in accommodation – even in the beds!

Figure 3: Reduce your exposure to germs

To avoid becoming sick or passing illness on to others, follow these tips:

- Wash your hands often, especially before eating.
- Where clean water and soap is unavailable, hand sanitiser containing at least 60% alcohol is a good substitute.
- Avoid touching your eyes, nose, or mouth. If you need to touch your face, ensure your hands are clean.
- Cover your mouth and nose with a tissue or your sleeve (not your hands) when coughing or sneezing.
- If possible, avoid contact with people who are sick.
- If you are sick, stay home or in your hotel room, unless you need medical care.

Foods to be wary of include:

Anything raw: meat or fish; steak which is not well-done; platters of cut up fruit or vegetables, salads – can you be sure the hands that prepared them were clean or that the water they were washed in was sterile?

For street food vendors, apply the same rules as above: freshly cooked, served hot.

Some adventure holidays offer the opportunity to try the local bush meat. This generally comes from animals such as bats, monkeys or rodents. Be aware, bush meat can be a source of animal origin diseases, e.g. Ebola, SARS, etc.

Bugs:

If the holiday involves spending a lot of time outside (including adventure camping or glamping), permethrin-treated clothing and gear (see: https://travelreadymd.com/how-to-make-your-clothing-insect-repellent/) can make for a more enjoyable, less bitten experience.

Permethrin is an insecticide which kills the insects when they land on treated materials. Although It is also used in a much weaker, cream form to kill scabies infestations, it is not recommended to be used as a topical skin bug deterrent.

Wearing long-sleeved tops, long pants and hats can help to

protect the skin and reduce the risk of bites.

Check your entire body for ticks after outdoor activity and be sure to remove ticks properly see https://www.cdc.gov/ticks/removing_a_tick.html for information.

For protection against ticks and mosquitoes that will last up to several hours, use a repellent that contains 20% or more DEET (N, N-Diethyl-meta-toluamide**)** on skin.

To prevent inflammation and infections avoid scratching the bites and apply hydrocortisone cream or calamine lotion. Take oral antihistamines to reduce the itch.

Animals:

Most animals will avoid human contact but will defend their young or territory when necessary. Animal bites or scratches can lead to infection and serious diseases such as rabies. As a rule:

Don't touch, don't feed, don't pet.

Animal saliva will, no doubt, contain disease causing microbes.

Take extra care around dogs, bats, monkeys, sea animals, e.g. jellyfish and snakes. If bitten or scratched immediately wash the wound with soap and clean water and seek medical attention.

PERSONAL SECURITY:

It isn't possible to talk about travel health without highlighting some of the strategies for keeping safe when travelling.

Before leaving home, doing some research about the destination, local laws, customs and culture will help raise awareness of safety risks. Travellers can register on the Safe Travel website www.safetravel.govt.nz .

Checking for travel alerts for the route or destination is a must and knowledge of where the nearest NZ embassy or consulate is.

On arrival, follow local laws and customs. Use common sense, stay alert and aware of the surroundings.

Carrying a photocopy of your passport, while leaving the original in a secure place in the accommodation with any other valuables, is a wise move. As is checking out the security in the accommodation and using it.

CONCLUSION:

The above are simply some general advice which could be used anywhere in the world, even at home, when on holiday or in unfamiliar surroundings.

In order to make the break great, I encourage people to check out any of the websites in Figure 1. If they check out their own destination, they are more likely to remember and apply some of the advice.

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Influenza – protect yourself!

Erica Donovan

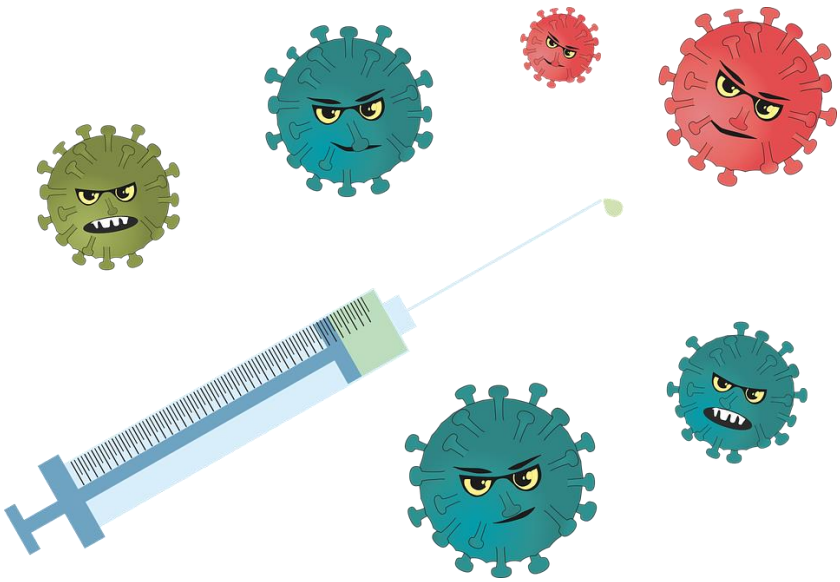
With colder weather and people spending more time indoors trying to keep warm it's no wonder that we see a spike of cases of respiratory infections and influenza over winter. For some influenza might mean just time off work and symptomatic treatment, but patients can also end up in secondary care. From 2000-2016 influenza hospitalisations rose from 199 to 1381 (Institute of Environmental Science and Research Limited, 2017).

It can be worth checking with your patients around their medical history, as some will be eligible for the government funded influenza vaccine. Criteria is available here, and in the past I've also had to call their information line directly to clarify certain issues and the staff have always been really helpful.

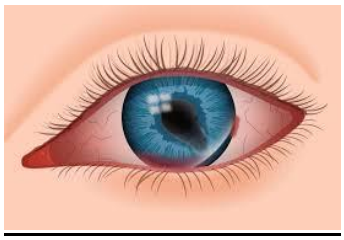
For those of you in General Practice, MedTech software will allow you to run a Query Build that can help you identify patients that are eligible for vaccination but may not have yet opted to receive one. There will always be people who object to receiving it, but for many patients they just don't get around to it or aren't aware of the benefits or have received incorrect information in the past. Providing a moment of evidence-based education, can be the difference between having and not having a vaccine.

On the same website you can also order workplace resources including information in several different languages. I like to remind patients about the concept of herd immunity – it's not always about protecting you. They might have 'an immune system of steel' they never get sick – but some people aren't so lucky, and we need to protect those who are vulnerable around us.

Ministry for the Environment. (2017). *Influenza Hospitalisations, 2000–16.* Received 2 May, 2019, from Ministry for the Environment website: https://data.mfe.govt.nz/table/89457-influenza-hospitalisations-200016/



OCULAR TRAUMA



Yvonne Little

Nurse Practitioner

Our eyes are the windows to our world. They are a delicate structure which can be damaged so easily. Whilst our eyelids and eyelashes are structures in place to protect the eye, what happens when they fail to do so. The answer to that is Ocular Trauma, or eye injury as it is known to the general public.

Having recently attended an Ocular Trauma evening with GP colleagues and optometrists, I started to wonder how comfortable nurses are with this subject hence the decision to write an article that may be of assistance to you in becoming more familiar and comfortable, if that is the right word, at looking at eyes and trauma.

So, how many nurses feel comfortable looking at an eye and making a triage decision about the seriousness of what they see before them. Many may think this is the doctor's domain and whilst the treatment and medications may well be, it is vital that as nurses we recognise ocular trauma for what it is as we are often the first one (apart from the receptionist) that a person will see when they have had suffered an injury.

According to the New Zealand Medical Association, ocular trauma is a major public health issue. The majority of these injuries occur at home, at work, at sporting events, in motor vehicle accidents or assaults.

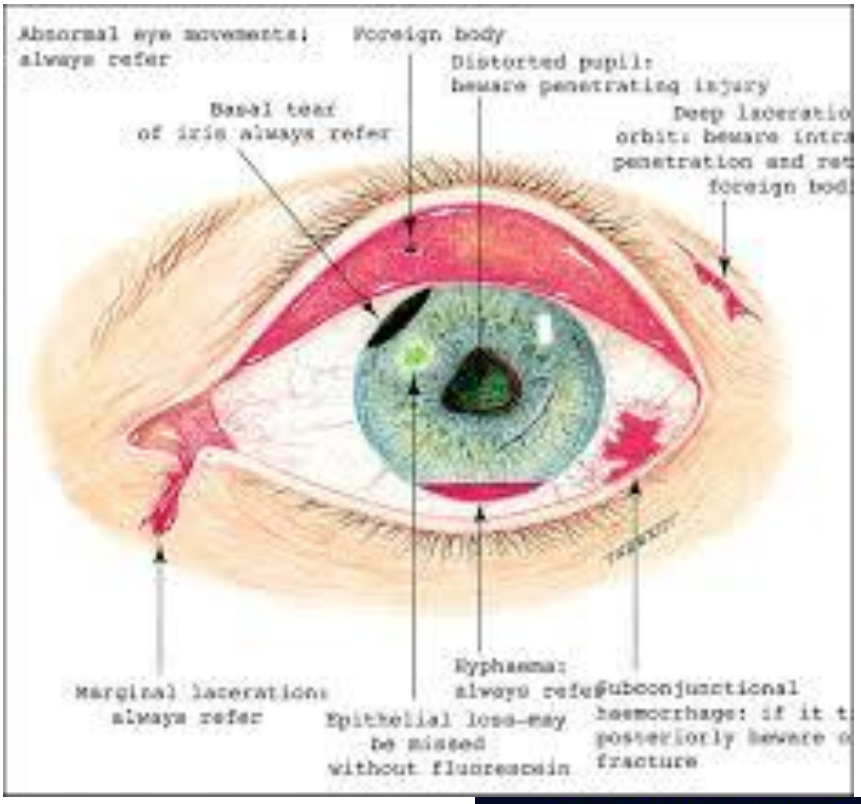
Whilst, ocular trauma can have a devastating effect on the individual, it is more far reaching than simple the person to whom it has occurred. It has an impact on both the healthcare system and the wider community with time lost from work. Negrel and Thylefors (www.nzma.org.nz) "reported that 1.6 million people are blind secondary to ocular injuries, 2.3 million with low visual acuity bilaterally and 19 million with unilateral blindness or low vision".

So, what is ocular trauma/injury?

It is an injury affecting the eye or adnexa. These can range from the simple (getting soap in your eyes) to the more complex and life altering. www.nzma.org.nz

Below is a diagram of the eye and the sites at which each type of injury can be found, I have included further details about the types of injuries, their causes, symptoms and some pictures to help you visualise what these can look like, but as you will be aware not everyone presents with the classic picture of any injury or illness.

www.emedicinehealth.com



Symptoms will be related to the type of injury, following is a brief overview of the types of injuries, their causes and some pictures, which are a good starting point for any triage:

1. **Chemical burn** will cause pain or intense burning, profuse tearing, eye redness, and swollen eyelids

merckmanuals.com

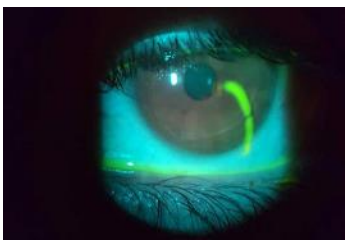
slideshare.net

Chemical burns can occur in a number of ways but most commonly by splashing a liquid into the eye. Some are mild irritants such as soap, sunscreen etc which irritate the eye but do not do permanent damage. **BUT** strong acids or alkalis are highly caustic and can cause severe or even permanent damage to the eye. Other methods of sustaining a chemical burn to the eye include rubbing the eyes when working with chemical which transfers the substance from the skin on the hands to the eyes and aerosol exposure such as hairspray and pepper spray.

2. **Subconjunctival haemorrhage (bleeding)** is generally painless and vision will not be affected, it include a red spot of blood on the sclera (the white part of the eye) due to the rupturing of a blood vessel on the surface of the eye. If trauma is not involved then it will resolve itself within a short period (usually around 10 days).

Subconjunctival haemorrhages are usually spontaneous bursting of the blood vessel but can occur with **ANY** type of eye trauma.

3. **Corneal abrasions** symptoms will include pain, a sensation that something is in the eye, tearing, and sensitivity to light.



medical-dictionary.thefreedictionary.com

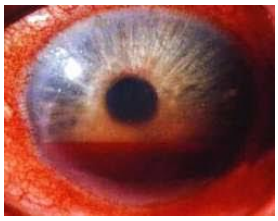
Corneal abrasions are caused by a scratch or a defect (causing by trauma) on the cornea. Most common causes are: toys, metallic objects, a child's fingernail (or even your own), or a twig or tree branch. For those who wear contact lenses it can mean they have left them in too long.

4. **Iritis** symptoms will include pain often described as a deep ache both in and around the eye, light sensitivity, and excessive tearing can occur.

medical-dictionary.thefreedictionary.com

Traumatic iritis can occur in the same way as a corneal abrasion but more commonly it is the result of a blunt force injury to the eye, such as a fist, club/bat or an air bag going off in the car. It is simply an inflammation of the iris.

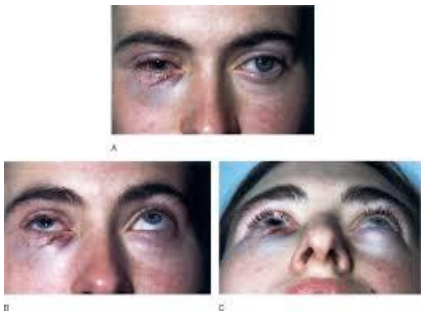
5. **Hyphema** (bleeding in the eye) symptoms will include pain and blurred vision. This is different to the conjunctival haemorrhage due to the symptoms.



medical-dictionary.thefreedictionary.com

Hyphema's are caused by injury with significant force with a blunt object to the eye and surrounding area, these can be things such as: fists, bats, kicks to the face, squash ball, corks from bottles and such like.

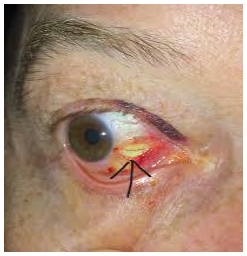
6. **Orbital blowout fracture:** symptoms will include pain, especially when moving the eyes; double vision that goes away when one eye is covered; and eyelid swelling (can worsen when blowing the nose); upper lip numbness on the same side as the injury; and swelling around the eye and bruising (black eye) due to pooling of blood in they eyelids. It can take weeks to disappear totally.



sciencedirect.com

Orbital Fracture Blowouts are caused by the same mechanism as Hyphema's which is blunt force to the area of the eye and surrounding tissue.

7. **Conjunctival lacerations:** symptoms include pain, redness, and a sensation that there is something is in the eye.



app.figure1.com

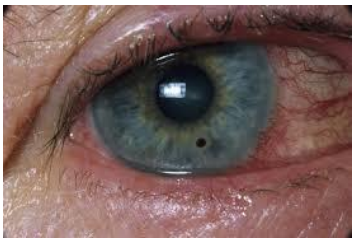
Conjunctival Lacerations are commonly caused by a sharp object but can also occur from falls.

8. **Lacerations to the cornea and the sclera:** symptoms include decreased vision and pain.

odlarmed.com

Lacerations to the cornea and the sclera are serious and associated with trauma from sharp objects such as metal and glass.

9. **Foreign bodies**: There are three categories of foreign body in the eye which are related to how deeply affected the eye will be, the most common one we are likely to see is the corneal foreign body.
    a. **Corneal**: often there is a sensation that something is in the eye, can cause tearing, blurred vision, and light sensitivity, these are common symptoms. Sometimes the foreign body can be seen on the cornea. If the foreign body is metal, a rust ring or rust stain can occur.



msd.manuals.com

Foreign bodies are generally small pieces of wood, plastic or metal.Corneal foreign bodies are embedded in the cornea but have not penetrated the eye.

    b. **Intraorbital**: Sometimes the person will not develop any symptoms. But if they do, they usually occur hours or days after the initial injury and can include decreased vision, pain and double vision.

Intraorbital foreign bodies are located in the orbit but have not penetrated the eye.

    c. **Intraocular:** If the foreign body is small and has entered the eye at a high velocity then the person may not have any symptoms initially, subsequently they may experience eye pain and decreased vision.

Intraocular foreign bodies penetrate the outer wall of the eye and lodge within the eye itself.

10. **Light-induced injuries: Include ultraviolet keratitis and solar retinopathy.**
    Ultraviolet keratitis: Symptoms do not appear immediately after exposure but generally about four hours later, the symptoms include: pain, light sensitivity, redness, and an intense feeling that something is in the eye.
    Solar Retinopathy: The primary symptom of this is decreased vision with a small area of blurring centrally.

Ultraviolet keratitis, also known as corneal flash burn is caused by UV light from welding arcs, tanning booths and reflected off snow, water or reflective surfaces (hence a very good reason to wear sunglasses).

Solar retinopathy, is damage done to the central part of the retina caused by staring at the sun. Commonly noted when people are viewing solar eclipses or for those in a drug induced state who stare at the sun for extended periods of time.

TREATMENT FOR OCULAR TRAUMA

As is the case in most areas of health, the best treatment is prevention, but where that is not possible once you've identified the cause of the injury then we need to prevent further harm.

Prevention includes: using protective eyewear when doing activities which potentially put the eyes at risk, such as home renovations/repairs, gardening, cleaning, and playing sport.

In minor cases, the injury can be treated by applying cold to the affected area to bring down the swelling, or in the case of chemical burns or foreign bodies, IRRIGATE, IRRIGATE, IRRIGATE to remove the chemical or foreign body, however **ALL** eye injuries need medical attention.

Early intervention by an ophthalmologist for severe injuries is recommended, and even as nurses (especially those who work in isolation) we need to be proactive about this.

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2. Managing Ocular Injuries: From Front to Back Lori Vollmer, O.D., M.S., F.A.A.O. Associate Professor of Optometry: https://www.nzao.co.nz/sites/default/files/2018conference/Ocular-Injury_Lori-1.pdf
3. Eye Trauma Symptoms and Treatments of Eye Injuries: http://www.bausch.co.nz/your-eye-concerns/eye-injuries/eye-trauma/
4. Ocular Trauma Epidemiology: New Zealand Medical Association: https://www.nzma.org.nz/journal/read-the-journal/all-issues/2010-2019/2012/vol-125-no-1348/article-pandita
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Voices from the Past: Alcohol and Pregnancy

Maria Hart

Maria Hart, RN, works for the Bay of Plenty District Health Board as a Preschool Public Health Nurse. Maria has a strong interest in the First 1000 Days of life and was the 2018 recipient of the Margaret May Blackwell Scholarship, a travel fellowship for child health nurses.

We have had recorded warnings about alcohol and pregnancy for over 2300 years! It is these voices from the past that are urging me to raise people's awareness of how prenatal alcohol exposure (PAE) may affect a person for life and put an end to this avoidable and costly neurodevelopmental disability. I don't know what has happened with this knowledge but feel that these concerns voiced all those years ago need to be honoured.

I was excited when I heard about the Margret May Blackwell Travel Fellowship. The bequest of Margaret May Blackwell makes available an annual award of $16,000 to enable a nurse working in early childhood health (O-5 years) to travel overseas for up to a three (3) month period. The fellowship provides nurses with an opportunity to gain further knowledge in a selected area of interest (interest areas chosen bi-annually by the NZNO MMB Consultative Committee). I applied for, and was successful in obtaining, the 2018-2019 Margaret May Blackwell Travel Fellowship with an application on raising awareness of and reducing the prevalence of Fetal Alcohol Spectrum Disorder (FASD) in Aotearoa.

"Foolish, drunken, or hare-brained women often bring forth children like unto themselves, morose and languid," Aristotle 330BC

'Behold, thou shalt conceive and bear a son, now drink no wine or strong drink.' Judges 13.7

'Our children are not born healthy because the parents drink to excess, and the child suffers' is the voice of Haimona Te Aoterangi and 167 other Wanganui Maori in a petition to Government in 1874 (Aoterangi, 1874).

Prenatal Alcohol Exposure *may* lead to FASD. FASD is recognised as the leading preventable brain based neuro-disability in the world (World Health Organisation , 2018). In recent years there have been numerous reports about New Zealand's binge drinking culture particularly amongst young women and men and the impact on the unborn child. In 2001, for the first time, more women than men were admitted to Emergency Departments with alcohol poisoning and this number has been increasing every year (Gibbs & Sherwood, 2017) .

Using the Margaret Blackwell funding, combined with the support of Community Health 4 Kids (CH4K) team and the Bay of Plenty District Health Board (BOPDHB), my learning journey began in Perth where I had the privilege of attending the 2nd Australasian FASD Conference in November last year. I then went onto Alice Springs where I spent a week visiting with

midwives and health promotors working in the field of "Making FASD History in Australia." My Australian journey ended at the FASD Hub in the Gold Coast where I had the privilege of observing Dr Doug Shelton and his dynamic diagnostic team at work.

I headed off again to Canada in March this year. I spent a week in Vancouver attending the 8th International FASD Conference and visiting services and universities. I then flew across Canada and spent time with mental health and addiction services in Ottawa, Cornwall and Toronto

Health, 2018). The study indicates that women are capable of handling the facts and are ready to hear the messages. While the voices from the past quoted at the beginning of this article are that of men, it is women who have a biological innate *purpose* with regards to children. In my role as a female health professional I feel a biological innate *responsibility* to respect that and learn as much as I can about it. Understanding the effects of prenatal alcohol exposure and considering this as a possibility when I am working alongside a client/patient/whanau will

consistent health messages. New Zealand has a Taking Action on FASD Action Plan (FASD Working Group, 2016) which provides guidance with 10 action areas. Nurses have a role in each of these areas.

The language we use has a powerful impact on the way people with FASD are perceived and are treated. I used to contribute to the stigma by saying things like "FASD is 100% preventable." I now understand that saying this oversimplifies a complex issue and adds to the stigma and stereotyping. Thankfully Telethonkids (2019) has published a language guide

Three key messages that nurses can implement in their everyday practice to prevent and reduce the prevalence of PAE and FASD are:

- Become FASD informed
- Facilitate and implement routine screening and brief intervention for alcohol use
- Use language that reduces stigma and stereotypes

As health professionals we have a responsibility to become FASD informed because "Women want to know." Women Want to Know is a project that was developed after Foundation for Alcohol Research and Education (FARE) found that 97% of pregnant women indicated that they want clear advice from their health professional about the levels of alcohol consumption that are safe during pregnancy (Australian Govenment Department of

contribute towards the optimal treatment pathway for that person.

The '*Women Want to Know*' project encourages health professionals to routinely discuss alcohol and pregnancy with women and to provide advice that is consistent. For this to happen, frontline staff need education, guidance and support to feel competent and confident in implementing screening and brief interventions and delivering

to promote dignity for those impacted by FASD.

FASD does not occur in isolation, we all have a role to play in the prevention of prenatal alcohol exposure. I am thankful for the Margaret May Blackwell Travel Fellowship and the opportunities this has provided me in beginning to honour the wisdom and insight provided by the voices from the past.

If you are worried about your own drinking, or someone else's, alcohol drug telephone helpline is only a call away. Call 0800 787 797, 24 hours a day, 7 days a week, to speak with a trained counsellor. All calls are free and confidential.

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Rugby Head Injury Clearance

Yvonne Little

Nurse Practitioner

One of the most common questions a nurse or a doctor will be asked is when can I or my child return to sport following a concussion/head injury. Whilst each sport is different, the most common one for concussion or head injury is rugby due to the very nature of the physical contact of the game, so that is what this article will concentrate on. For other sports I suggest you check with their governing bodies as to what their rules state, I assure you they will be most helpful as they like us in the health profession do not want to see ongoing effects from missed opportunities to protect our population.

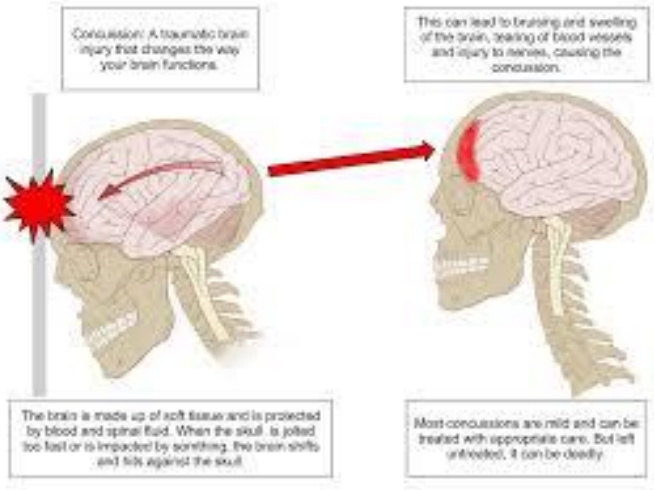
An estimated 35,000 head injuries occur in New Zealand every year, this in itself is an alarming figure, but the fact that 21% of these are sports related is also of concern. Because of the potential for ongoing health issues following a concussion/head injury the emphasis is on the need for comprehensive assessments and strict rules for returning to play.

We do not only see concussion/head injury in our practices, many of you or your partners will be parents or umpires/referees or coaches or just simply supporters of your family/friends and their sporting endeavours, so before we look at the rules of returning to sport, I will do a quick recap here on what concussion/traumatic brain injury/head injury is and how we can best prevent ongoing effects from such events. We as nurses need to get the following information out to as many of our patients who are sports players / coaches / referees / parents or sports supporters.

So, what is a concussion: It is a mild Traumatic brain Injury (mTBI). A concussion is a

brain injury defined as a "complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces".

En.wikipedia.org



In all the documents I have reviewed for this article the following advice is concise and very pertinent:

1. Concussion MUST be taken seriously
2. All people involved in the game of rugby league should be able to RECOGNISE what a concussion is
3. Any player with a concussion must be REMOVED immediately from training or the match activity and MUST NOT return
4. All concussions should be medically assessed
5. Players with a concussion MUST NOT be left alone and MUST NOT drive a vehicle
6. All suspected concussions MUST be recorded and reported to the General
7. Manager of the Zone where the player is registered AND to New Zealand Rugby League

ACC provide a pocket sidelines check list and this can be found at: https://accsportsmart.co.nz

If you are at the game, some of the useful questions to ask are:

1. What ground are we at?

2. What team are we playing today?

3. Who is your opponent at present?

4. What quarter/half is it?

5. How far into the quarter/half is it?

6. Which side scored last?

7. Which team did we play last week?

8. Did we win last week?

9. Count pre-determined numbers backwards

10. Months of the year in reverse

Physical/clinical signs to monitor for include:

1. Loss of consciousness or delayed responsiveness/ Lying on the ground not moving or slow to get up/grogginess/foggy headed
2. Loss of balance / co-ordination/ dizziness
3. Disorientation / confusion/ concentration or memory problems
4. Visible injury to the face or head (especially in combination with any other signs).
5. Seizure or convulsion.
6. Nausea or Vomiting
7. Blurred vision/ double vision/sensitivity to light/sensitivity to noise
8. Neck pain
9. Headache or “pressure” in head.

How to manage the concussed player at the time of injury:

Firstly, we need early identification of a concussion (see above for what to look for)

The player needs to be removed from the game and not return.

They MUST NOT be left alone or drive a vehicle

They MUST always be in the care of a responsible adult, who is informed of the players suspected concussion

Medical assessment should be done as soon as possible.

Post-Concussion Syndrome (a more common feature than we think it is) must be considered when a patient attends our practices following an injury at a game. If they are continuing to experience problems after 28 days following the initial injury then the signs and symptoms to be aware of are the following:

1. Sleep disturbance;
2. Difficulty in concentrating; or frustration at or applying themselves to tasks; poor attention span
3. Irritability, intolerance in general and to noises in particular;
4. Dizziness on turning of the head; recurrent headaches
5. Any symptoms provided by activities such as sprints or sit-ups;

6. Anxiety and/or depression

Referral to a neurologist or sports medicine physician should be done for assessment before they return to sporting activities.

What is a Recovery Period?

There is no simple way to determine how severe a concussion is or whether a full recovery has been made hence there is contention around how long this "recovery period" should be.

The governing body (NZ Rugby) has a mandatory stand down timetable which is based on: reaction times, because the players reaction times and decision-making abilities going to be less then optimal following an event, they are at increased risk of further accidents/injuries (most importantly, to the head).

Stand down and return to play

Whilst most players who suffer a concussion will recover spontaneously over a few days, it is important that physical and cognitive rest is adhered to, what this means is that any activities requiring concentration or attention should be avoided (for working age that may mean a few days off work, for school age that will be days off school), including television, computers, cellphones, reading or driving. A failure to adhere to this can cause potential aggravation of symptoms and/or delay in recovery.

New Zealand Rugby League Policy states "where a concussion is suspected for players over the age of 16, a minimum of at least 21 day stand down period is observed by the player concerned following the return to play guidelines"

"Players at the age of 16 or under shall observe at least a 28 day stand down period as in adolescent and youth the developing brain takes longer to recover from the damage and symptoms of a brain injury. This is comprised of a period of no less than 21 days rest and then undertaking the graduated return to activity process."

If a player wishes to return to play before the minimum stand down period then this can only occur after neurological assessment done by a specialist and clearance given.

The Blue Card initiative was started to ensure players safety and welfare, improve concussion management and support player recovery and long- term health hence referees will issue a blue card when they suspect a concussion.
http://www.bluecard.co.nz

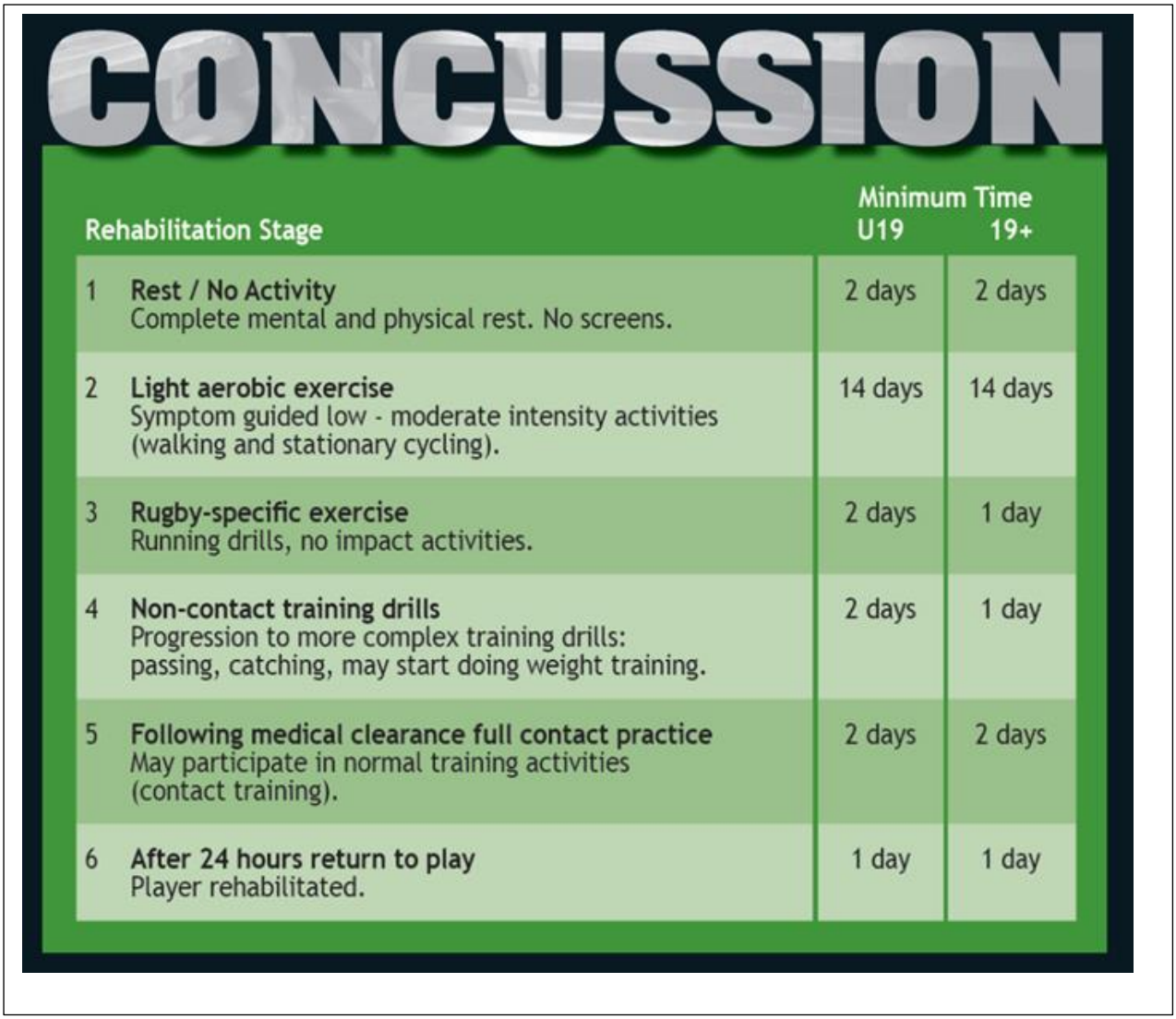
Graduated Return to Play (GRTP) guidelines:

A GRTP should only commence if the player:

• has completed the minimum rest period for the player's age grade; and

• is symptom free and not taking any medication that modifies the symptoms of concussion. Medical or approved healthcare professional clearance is required before they start their GRTP.

The management of a GRTP should be undertaken on a case by case basis.



https://www.axissportsmedicine.co.nz

Prior to return to play health practitioners will need to provide a clearance using the SCAT5

https://www.healthnavigator.org.nz/tools/s/scat5/

So, in summary, there are guidelines to help us advise our patients and their parents. Please have a look at these and maybe print off some information to have to hand or save to your favourites on your computer system.

REFERENCES

NEW ZEALAND RUGBY LEAGUE CONCUSSION / HEAD INJURY POLICY, February 2015

New Zealand Rugby League Medical panel, http://www.manawaturugbyleague.co.nz/

RUGBYSMART.CO.NZ: https://www.wrfu.co.nz/

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PHARMAC
SEMINARS UPDATE

A *Medicinal cannabinoids: what does primary care need to know?* Seminar was held.

If you'd like to know more about this topic you can watch the online sessions here.

Upcoming seminars
We are now taking registrations for the following seminars. Priority will be given to those who haven't previously attended a PHARMAC seminar or who are working in this topic area.

Health and wellbeing for health professionals – Monday 17 June, Ko Awatea, Auckland
Back by popular demand, Dr Fiona Moir will cover useful techniques for stress management and burn-out prevention.

Neurology update 2019 – 5 August 2019

Child health and immunisation update - Monday 12 August, Wellington
Dr Anne Tait Consultant Paediatrician from Starship hospital will discuss conditions that she is commonly referred from primary care and Dr Nikki Turner will be giving an update on childhood immunisations and the new proposed schedule.

Online seminars
We've recently added the following seminars to our online library:

ENT (Ear, nose and throat) update
Prof. Richard Douglas and Consultant Sumit Samant cover common ENT infections, chronic rhinosinusitis and advice for sleep apnoea.

Rheumatology update
This seminar covers rheumatoid arthritis, gout and Professor Ian Reid provides new information on osteoporosis treatments.

Remember, these seminars are CME and CPD approved for GPs, nurse and midwives.
You can access all available online seminars here.

Dementia (Part 2)

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Clinical Advisory Pharmacist

This article is the continuation of the article published in the March 2019 LOGIC.

Pharmacological Treatment for Cognition

There is no cure for dementia, but two classes of drugs, cholinesterase inhibitors (ChEI) donepezil, rivastigmine and galantamine, and glutamate antagonist memantine, can be used to maintain or improve the cognitive symptoms of dementia temporarily. (DOU 2018; GOODFELLOW UNIT 2017; NICE 2018; SZETO 2016) About half of the people taking ChEI either maintain their baseline cognitive function or show a modest improvement in cognitive function (CANTERBURY HEALTHPATHWAYS 2019; GOODFELLOW UNIT 2017). Only about 10% will show a significant improvement (e.g. an increase of 4 points on the Mini Mental state Examination (MMSE) and another approximately 10% may show a rapid decline in cognition. If improvements are going to occur, they would be expected to be seen within 3 to 6 months. ChEI may also improve BPSD and function. (CRAWLEY 2014)

As a substantial number of people with dementia will either show no benefit or have to stop taking ChEIs due to side effects, these medications should be trialled and their effect and tolerability monitored regularly, rather than being considered as a compulsory treatment for every eligible dementia patient. (CRAWLEY 2014; GOODFELLOW UNIT 2017) ChEIs are not effective for all dementias but can be trialled in AD, PDD (off label use), dementia with Lewy Bodies or vascular dementia which has an AD, PDD or dementia with Lewy Bodies component. ChEIs are not indicated for fronto-temporal dementia, vascular dementia, or dementia secondary to a single large infarct. (CANTERBURY HEALTHPATHWAYS 2019; NICE 2018; SZETO 2016)

i. ChEI Use in MCI

Current evidence does not support ChEI use in MCI for improvement of cognitive symptoms or for slowing progression of MCI to dementia. ChEI are therefore not recommended to be used until a person has been diagnosed with dementia and are recommended for mild to moderate dementia (AAN 2017; SZETO 2016).

ii. Availability in NZ

Donepezil is the only fully funded ChEI in NZ and should be trialled first. If donepezil is not tolerated or ineffective, then oral rivastigmine or galantamine may be trialled but neither drug is subsidised. Rivastigmine patches are available fully subsidised on Special Authority if the person has experienced intolerable nausea or vomiting on donepezil. (PHARMAC 2019) Memantine can be considered for moderate to severe AD but is unfunded. There is some evidence for improved cognitive function when memantine is used in combination with donepezil for moderate to severe dementia (DOU 2018).

iii. Mechanism of Action

Dementias such as AD and PDD have been associated with cholinergic deficits in the brain including the cerebral cortex. ChEI's increase the amount of acetylcholine and therefore cholinergic function in the brain by reversibly inhibiting the enzyme acetylcholinesterase which prevents it from breaking down acetyl choline by hydrolysis. (MEDSAFE 2014; SZETO 2016)

Glutamate is involved with neurotransmission in the brain. In AD, glutamatergic neurotransmission in the brain is thought to be faulty, particularly at the point of N-methyl-D-aspartate (NMDA) receptors on neurones that have them. In AD, higher than normal and prolonged levels of glutamate are thought to swamp magnesium ions that act as a voltage dependent block on the NMDA receptors. This allows a continuous flow of calcium ions through the NMDA channel and into the cell which causes damage to the neurone resulting in progression of AD and the development of AD symptoms. (MEDSAFE 2012) Memantine acts as a glutamate antagonist (SZETO 2016) to prevent this neurodegeneration by binding to the NDMA receptors and preventing the protracted influx of the calcium ions through the NDMA channel into the cell. While memantine stops the faulty prolonged influx of calcium ions into the cell, it also allows normal glutamatergic neurotransmission to take place which is by transient activation of the NMDA channel by higher concentrations of glutamate released in the synapses. As AD progresses and becomes more severe, there is eventually a loss of the neurones with NMDA receptors which causes a deficiency of glutamatergic neurotransmission (MEDSAFE 2012)

iv. Harms

- **ChEIs**

ChEIs are considered safe but they are not always well-tolerated with gastrointestinal and cardiac side effects, among others and can increase agitation in some people. (Crawley 2014; HOGAN 2014) Side effects and efficacy are dose-related with side effects including transient nausea being common when starting or increasing the dose of ChEIs. To reduce the risk of side effects, ChEIs can be given with food and should be started on a low dose with a slow up-titration if tolerated. (HOGAN 2014; PHARMAC 2019)

There is a small but increased risk for bradycardia which has been associated with syncope (and hip fractures due to falling during syncope). Concomitant beta-blockers can increase this risk. Patients should be assessed for falls risk and routinely asked if they are experiencing syncope, dizziness or faintness. (HOGAN 2014) Other cardiovascular side effects have been reported and ChEIs can worsen heart block, sick sinus syndrome and cause torsades de pointes. An electrocardiogram (ECG) is recommended pre-treatment if the heart rate is less than 60 beats per minute and if other QT prolonging medications are being taken. (CANTERBURY HEALTHPATHWAYS 2019; HOGAN 2014)

Cholinergic side effects such as urinary incontinence, increased gastric secretion and bronchoconstriction can occur as can weight loss and anorexia. Urinary continence is common in people with dementia and ChEIs can worsen this as well as cause it. This can potentially start a prescribing cascade with an anticholinergic then being prescribed. The ChEI and anticholinergic can interact and lessen the effectiveness of each other. The combination should be avoided. Non-pharmacological approaches for managing urinary incontinence such as moderating fluid, the use of incontinence products and scheduling regular emptying of the bladder may be tried. If the urinary incontinence

is distressing and unable to be satisfactorily managed for the person and their carer, the ChEI dose may need to be reduced or stopped. (CANTERBURY HEALTHPATHWAYS 2019; HOGAN 2014)

Accordingly, precautions for using ChEIs include patients with a history of gastric or duodenal ulcer disease, asthma or chronic obstructive pulmonary disease, recent myocardial infarction or heart conduction issues, sick sinus syndrome, urinary outflow issues and concomitant anticholinergic and antipsychotic medication. (CANTERBURY HEALTHPATHWAYS 2019; HOGAN 2014; NZF 2019).

Donepezil can cause vivid dreams or insomnia which can be managed by taking the dose in the morning. (CRAWLEY 2014; LIVINGSTON 2017)

- **Memantine**

Memantine needs to be used with caution in patients with a history of seizures or cardiovascular disease. Memantine has a number of side effects including dizziness, drowsiness, constipation, hypertension and heart failure among others. It can very rarely cause seizures. The ability to drive may be affected and people need to take care when standing up after sitting or lying down. (CRAWLEY 2014; NZF 2019)

v. Stopping Dementia Medication

As dementia is a progressive condition and ChEIs and memantine have not been found to have any effect on slowing its progression, a deterioration in cognitive function will eventually become evident while a person is on dementia medication (HOGAN 2014; SZETO 2016). The mean time for this to occur, is 9 to 12 months after starting treatment. (GOODFELLOW UNIT 2017) It has been postulated that ChEIs lose their effectiveness over time because they cause more rapid progression of AD by causing more phosphorylated tau to be laid down in the cerebral cortex. This is based on one autopsy study of people with AD treated with CHEIs for 6 to 12 months that has yet to be confirmed by other evidence. (HOGAN 2014)

There is little long term data regarding a specified period of time patients should be on these medications before they are stopped. Treatment decisions need to be individualised with defined treatment goals and made in conjunction with the carer and whanau (or the identified by-proxy person). (HOGAN 2014)

Consensus is that ChEIs should be continued while they are tolerated and providing symptomatic benefit and not continued indefinitely. Regular treatment review (baseline, after 1, 3, and 6 months, then 6 monthly thereafter) needs to take place including assessing for side effects, treatment benefit and how the dementia symptoms have progressed from baseline. (HOGAN 2014; CANTERBURY HEALTHPATHWAYS 2019; NZF 2019)

Any decision to stop therapy should involve the patient as well as whanau and carers who can feel considerable guilt at agreeing for the medication to be stopped, particularly if the person's dementia symptoms deteriorate. Reassurance and support is likely to be required. (PARSONS 2019)

ChEIs should be tapered rather than stopped abruptly to reduce withdrawal symptoms and the patient's cognitive function needs to be monitored (HOGAN 2014; CANTERBURY HEALTHPATHWAYS 2019). If a person's cognitive impairment or behaviour deteriorates markedly after stopping their dementia medication, treatment can be restarted. It is recommended this is done within 2 weeks of stopping treatment after which the

medications may not return the person's cognitive function back to the level of when the medication was stopped. Stopping treatment can be a good way to test if the medication is working i.e. maintaining baseline function for those people who show no obvious improvement in cognitive function after treatment initiation. (HOGAN 2014; CANTERBURY HEALTHPATHWAYS 2019)

General consensus is that dementia mediation should be stopped when the dementia has progressed to a stage where the person is severely impaired, or if side effects are intolerable, the medication is not working or if the person has comorbidities that make taking the medication unacceptably risky. (HOGAN 2014)

e. Non-Pharmacological Treatment of Cognition

There is little evidence for non-pharmacological treatments improving cognition. (NICE 2018) One treatment for which there is some evidence is Cognitive Stimulation Therapy (CST) which has been found to improve test scores for memory and thinking as well as the ability to communicate and interact in patients with mild to moderate dementia. CST was found to improve quality of life but not mood, difficult behaviour or the ability to function independently. (WOODS 2012) Some dementia support organisations like Alzheimer's NZ or Dementia NZ may provide CST. (GOODFELLOW UNIT 2017)

f. Management of Behavioural & Psychological Symptoms of Dementia (BPSD)

Common symptoms of BPSD include agitation, aggression, paranoia or psychosis, resistance, wandering, repetitive behaviours, apathy, anger, irritability, restlessness at night, hallucinations, disinhibition and vocalisation among others. (CRAWLEY 2014) BPSD can be distressing for the person with dementia, contribute to carer stress and are a risk factor for institutionalisation. Managing BPSD well can help people stay in their homes for longer and help people to live well with their dementia whether they are living in an institution or at home. Carer stress can be reduced also by giving carers skills and tools to manage and redirect behaviour. (MOH 2013)

i. Non- Pharmacological Approaches for BPSD

Non-pharmacological therapy is often more effective than medication for managing BPSD and is recommended to be tried first. (CRAWLEY 2014; NICE 2018) But prior to this, it is important to look at the sequence of events around a particular behaviour occurring and to assess for any possible triggers. (CRAWLEY 2014; NICE 2018) This is to determine if there are any patterns and contributing factors or triggers that could be changed to lessen the likelihood of the behaviour occurring.

The 'ABC' approach of considering **A**ntecedents (what has happened before the behaviour), **B**ehaviours (what specific behaviour is problematic) and **C**onsequences (what happened after the behaviour and who it is problematic for i.e. the person with dementia, the carer or other residents) is one approach recommended for this. Changing antecedents and consequences can help change behaviour. Helping the carer to understand that a behaviour may indicate an unmet need and then finding ways to meet that unmet need can reduce incidents of the behaviour. (CRAWLEY 2014; CANTERBURY COMMUNITY HEALTHPATHWAYS 2019)

Possible triggers for behaviours include psychological (e.g. distress, fear, loss of control), medical (e.g. pain, thirst or

hunger, infection), environmental (e.g. noise, low lighting, change in or lack of routine) and medication triggers (e.g. ChEIs, anticholinergics, benzodiazepines). Appropriate management and treatment of any identified triggers is essential with undetected and under-treated pain being extremely common in people with dementia. (CRAWLEY 2014) Due to the deterioration in cognition, people with dementia can lose the ability to respond to thirst and hunger and need support to eat and drink sufficiently with little and often being an approach that may be helpful. A variety of strategies can assist with psychological triggers including not arguing, limiting choices, directing positively ("Please do this") rather than using "Don't do this" and providing reassurance and redirection, for example. (CRAWLEY 2014)

Non-pharmacological approaches involving a psycho-social approach can help to improve quality of life, promote a sense of well-being and may help improve mood and behaviour. (GOODFELLOW UNIT; NICE 2018)

Meaningful activity that the person can undertake is important like gardening and helping with meal preparation but the activity may require adapting so the person is able to do it. Day programmes and respite care can provide access to activities such as music and art therapy, physical activities and walking groups which also help to reduce social isolation and help a person to live well with their dementia. (GOODFELLOW UNIT 2017; VAN DER STEEN 2018) Reminiscence therapy or life story work may also provide benefit for the person. (ELFRINK 2018; GOODFELLOW UNIT 2017; WOODS 2018)

ii. Pharmacological Approaches for Managing BPSD

- **Agitation, Aggression or Psychosis**

When non-pharmacological approaches have not been sufficient to manage recurrent moderate to severe behaviours, and when the behaviours are greatly distressing for the person or put them or others at risk of harm, pharmacological therapy in the form of antipsychotics may need to be considered. (CRAWLEY 2014; NICE 2018) There is some limited evidence for short term use of antipsychotics in these situations for agitation, aggression or psychosis.

Antipsychotics seem to work better for more severe BPSD but only provide a modest effect and have significant adverse effects, including a possibly increased mortality risk for dementia patients when used long term. (CRAWLEY 2014) Due to this, and because BPSD can be short-lived and may spontaneously resolve, review of the person and treatment is required every 3 months with a view to using a slow, gradual taper and then stopping the antipsychotic if the behaviours and symptoms are controlled. The antipsychotic can be restarted if necessary if BPSD re-emerge with ongoing 3 monthly review and tapering and stopping if possible. The more severe the BPSD, the greater the likelihood of symptom re-emergence. Re-emergence of BPSD is also more likely if symptoms have recurred previously when antipsychotics have been tapered and stopped. (CRAWLEY 2014; CANTERBURY COMMUNITY HEALTHPATHWAYS 2019)

The atypical antipsychotics are preferred over typical antipsychotics like haloperidol for BPSD which has a higher risk for extrapyramidal side effects (EPS) and increased mortality risk in the elderly. (CRAWLEY 2014). Of the atypical antipsychotics, risperidone is preferred, with more evidence for its effect on treating aggression and agitation.

Risperidone also has less risk than quetiapine and olanzapine for anticholinergic and cognitive adverse effects, sedation, weight gain and QT prolongation, and therefore mortality risk is less, although still present when used long term in dementia patients. In higher doses, risperidone can have increased risk for EPS. (CRAWLEY 2014) Due to all antipsychotics increasing the risk for EPS, they are contraindicated in Parkinson's dementia and Lewy bodies with dementia without specialist input. (CANTERBURY COMMUNITY HEALTHPATHWAYS 2019)

Prevention of Dementia

There is evidence to suggest that about a third of dementia cases could potentially be prevented or delayed. This percentage could even be higher as there is currently insufficient evidence to determine the impact of some possible factors such as diet, alcohol, sleep and living near a major road. If even a portion of these cases could be avoided or delayed, this would markedly reduce the expected workforce, and social and health system impacts due to dementia as well as allow a large number of people to maintain cognitive functioning and quality of life. (LIVINGSTON 2017)

i. Potentially Modifiable Risk Factors

Nine potentially modifiable risk factors have currently been identified as contributing to the third of dementia cases that could be prevented or delayed. Less education in early life (education up to but not exceeding 11 to 12 years) is estimated to contribute to 8% of cases. Mid-life potentially modifiable risk factors and the estimated percentage they contribute to the number of dementia cases include hearing loss (9%), hypertension (2%) and obesity (1%). Late life potentially modifiable risk factors and the estimated percentage they contribute to the number of dementia cases include smoking (5%), depression in later life (4%), physical inactivity (3%), social isolation (2%) and diabetes (1%). (LIVINGSTON 2017)

ii. Risk Factor Mechanisms for Cognitive Decline:

1. Less Education in Early Life

People with less education in early life have less cognitive reserve exposing them to the effects of cognitive decline.
(LIVINGSTON 2017)

Evidence has shown that people with a larger brain mass and whose large neurons are better maintained are at less risk of developing dementia even if there are pathological changes in the brain. (GANGULI 2009) It is not known yet whether education after this time will be protective.
(LIVINGSTON 2017)

2. Hearing Loss

Mechanisms for how peripheral hearing loss contributes to cognitive decline have not been determined. They may include brain changes as a result of hearing loss-induced social isolation and depression. Hearing loss may also increase the cognitive load of a brain that is susceptible to cognitive decline. Dementia is associated with old age as are vascular changes which can

cause peripheral hearing loss so this could be a confounding factor. Greater hearing loss has been linked with greater cognitive impairment so increased hearing loss in later life is likely to also impact on the progression of cognitive decline. There is no evidence available to determine whether or not hearing aids could prevent or delay this. (LIVINGSTON 2017)

3. Hypertension, Obesity and Diabetes

Mid-life hypertension, obesity and diabetes all contribute to vascular risk and associated changes in the brain that can cause cognitive decline as is seen in vascular dementias. Amyloid clearance in the brain is affected when the brain's production of insulin is decreased. This occurs in conditions causing high insulin resistance and therefore high peripheral levels of insulin such as metabolic syndrome, pre-diabetes and Type 2 diabetes, all of which obesity is a risk factor for. Diabetes causes high blood glucose levels and inflammation which may also contribute to cognitive decline. Oxidative stress and inflammation have been associated with an increase in amyloid β deposits in the brain. (LIVINGSTON 2017)

While there is not sufficient evidence currently to advise on specific lifestyle changes to delay or protect against dementia, a Mediterranean diet (high intake of fish, fruit and vegetables and low intake of dairy and meat) has been found to reduce cardio and cerebrovascular risk factors that are associated with dementia risk. (LIVINGSTON 2017)

4. Exercise

Exercise has been found in observational studies to significantly reduce the risk of dementia and help to maintain cognitive function in older people compared to older people who did not exercise. High levels of exercise were found to be more protective but there are no randomised controlled controls yet to prove this. (LIVINGSTON 2017) The mechanism may be due to increased cerebral blood flow and exercise causing brain-derived neurotrophic factor (BDNF) to be released which is neuro-protective. Other mechanisms may include exercise helping to reduce some of the other modifiable risks for dementia such as hypertension, obesity and obesity related conditions such as insulin resistance and diabetes. Exercise reduces vascular risk and cortisol levels which may prevent

hippocampal atrophy, both of which are implicated in dementia development. (LIVINGSTON 2017)

5. Smoking

Smoking may contribute to cognitive decline due to being toxic to the brain as well as having an impact on cardiovascular risk factors. (LIVINGSTON 2017)

6. Depression

Depression in later life (in the previous 10 years before dementia incidence) but not mid-life depression has been found to be a risk factor for developing dementia. (LIVINGSTON 2017) As depression can also be a symptom of dementia, there is some discussion about whether depression is an early sign of dementia or whether it is a risk factor i.e. is depression the cause or is it a symptom? (GANGULI 2009, LIVINGSTON 2017)

One possible mechanism may include dementia causing atrophy of the serotonergic and noradrenergic systems in the brain causing depression. Another mechanism may involve cerebrovascular disease causing changes in the brain (not necessarily a large stroke) that affect the prefrontal systems that are associated with executive functions and mood causing depression. (GANGULI 2009)

Other mechanisms may include depression causing an increase in stress hormones such as cortisol causing atrophy of the hippocampus. (GANGULI 2009, LIVINGSTON 2017) The greater the period of untreated depression, the greater the hippocampal atrophy. (GANGULI 2009) People with previous major depression have been found to have more amyloid plaques and tangles in the hippocampus than people who hadn't had major depression. This fact accompanied with cortisol-induced hippocampal atrophy being reversible in animals may mean that early and effective treatment of depression may delay the onset of dementia. (GANGULI 2009) Some antidepressants such as citalopram may also decrease the production of amyloid. (LIVINGSTON 2017)

7. Social Isolation

Like depression, social isolation may be a symptom of cognitive decline but may also be causative, or both. There is an increasing amount of evidence for social isolation being a risk factor for dementia. Possible mechanisms are related to social isolation causing increased risk for

depression, hypertension and heart disease, all of which can increase dementia risk. (LIVINGSTON 2017) Another possible mechanism may be less cortical activity as a result of social isolation which causes cognitive function to decline rapidly. (LIVINGSTON 2017)

iii. Evidence of Dementia Prevention Interventions

Results from longitudinal cohort studies where intervention strategies to modify dementia risk factors have been used in whole populations or high risk populations have been more encouraging than intervention trials. Intervention trial results have not been as good as expected.

This is partly due to trials being short, small, and single factor interventions being used. Multiple factors are likely to be involved in the development of dementia and as the incidence is low, trial sample sizes need to be large and a long length of study is required to show dementia incidence is reduced, with early interventions and long follow up. (LIVINGSTON 2017) This poses some difficulty especially related to cost and logistics.

Randomised controlled trials (RCTs) have shown good evidence, however, for the use of antihypertensive medication to prevent dementia. There are also some RCTs looking at multi-modal interventions that are still running. (LIVINGSTON 2017)

While evidence in the form of randomised controlled trials is not strong yet, there is gathering evidence to show that some interventions to modify dementia risk improve cognition. As dementia may be a late stage manifestation of a condition that starts many years before, the use of early prevention strategies at a population and individual level to modify risk is an important approach. (LIVINGSTON 2017) In an ideal world, there would be robust evidence to back this up, but there is precedence for population health strategies being used before evidence had proven their worth including hand-washing. (LIVINGSTON 2017)

On this basis, current evidence suggests that hypertension should be actively treated in mid and later life to reduce the incidence of dementia. Attention should also be focussed on modification of risk factors that will potentially have the best likelihood of delaying or preventing dementia. This includes effective management of diabetes, obesity, depression and hearing loss; employing strategies to increase education in early life; increasing social engagement and physical activity, and reducing smoking. (LIVINGSTON 2017) Other lifestyle factors that support management of diabetes, obesity and hypertension will therefore also have a role in preventing dementia such as healthy nutrition and moderating the consumption of alcohol.

Applying in Practice

- Improve your own health literacy about mild cognitive impairment and dementia e.g. (NB: the below examples are not an exhaustive list):
    - Access Regional HealthPathways and Health Navigator for health professionals for dementia and mild cognitive impairment
    - Complete the free Goodfellow Unit e-learning course for primary care available from: https://www.goodfellowunit.org/courses/dementia
    - If available, complete the "Walking in Another's Shoes" programme for aged residential care staff (HQSC 2018)
    - Access the Alzheimers NZ website: http://www.alzheimers.org.nz/
    - Access "The New Zealand Framework for Dementia Care" (MOH 2013)
    - Access dementia resources on the SI Health of Older People's website: https://www.sialliance.health.nz/our-priorities/health-of-older-people/useful-resources/
- Improve your patients' health literacy about dementia.
    - Help reduce stigma about cognitive impairment and dementia by providing accurate information to people and their whanau to dispel myths and assumptions. (MOH 2013)
        - Dementia is not part of the normal aging process – seek early diagnosis
        - A diagnosis of mild cognitive impairment does not always progress to dementia
        - Focus on the positive aspects of living with dementia, sharing the expectation that people can live well and positively ((KERR 2017; NZ FRAMEWORK 2013)
    - Promote dementia prevention messages at the same time you promote cardiovascular disease (CVD) healthy living messages
        - A healthy heart = a healthy brain
        - Eat well, sleep well, exercise well, maintain social connections, learn new things
    - Provide information about mild cognitive impairment and dementia including where people can access more information and support e.g.
        - Links to patient information sites Healthinfo, Health Navigator
        - Alzheimers NZ , Dementia NZ and local dementia support organisations
- Facilitate early diagnosis of cognitive impairment and dementia:
    - If working in an aged residential facility, ensure patients with dementia have a diagnosis in their care plan.
        - Monitor cognition regularly, be able to recognise symptoms of dementia and seek a diagnosis when necessary
    - In primary care or hospital, if a patient or person close to the patient expresses concern about memory or impaired cognition, ensure the patient is assessed for cognitive impairment using an approved tool. Do not assume the concerns are due to normal aging.

- Work closely with your local pharmacists or other allied health to identify patients who may have cognitive impairment that may require further investigation and diagnosis.
    - Pharmacists can print a list of your practice's patients who have been registered for their pharmacy's Long Term Condition Service for which non-adherence to medications is a primary prerequisite for enrolment. Cognitive impairment may be a factor for the non-adherence.
    - Pharmacists and other allied health may bring concerns to the practice about a patient's ability to manage their medicines or being at home – follow these up with an assessment for cognitive impairment and if appropriate, a referral for a NASC assessment. If necessary, a secondary care referral may need to be organised for psychogeriatrician assessment.
- Ensure reversible causes are considered:
    - Do a medicines reconciliation including OTC medications. If funded in your DHB, consider referral to a pharmacist for a medicines review. Patients may require support to be weaned off medications that may be contributing to their cognitive impairment
    - Ensure appropriate metabolic testing is undertaken e.g. electrolytes, B12/ folate, thyroid, calcium, renal and liver function tests
    - Check alcohol and drug use –thiamine levels may need to be tested

- After a diagnosis of mild cognitive impairment or dementia has been made:
    - Support the development of a dementia care plan
        - Encourage planning ahead e.g. the choosing of an EPOA, development of an ACP and will.
    - Be a navigator for your patient and their whanau:
        - Provide the patient, whanau and carer with appropriate information and resources so they understand the condition and the likely trajectory, know how to access appropriate supports, and know what signs and symptoms to look out for at the different stages and what to do if symptoms worsen or change.
        - Provide information to the person and their carer on how to recognise and prevent delirium e.g. https://www.sialliance.health.nz/UserFiles/SouthIslandAlliance/File/Understanding%20and%20preventing%20delirium%20tips%20for%20family.pdf and https://www.sialliance.health.nz/UserFiles/SouthIslandAlliance/File/Ideas%20for%20older%20people%20to%20help%20prevent%20delirium.pdf
        - Ensure the patient and carer know who to contact if they have queries or concerns i.e. who their health navigator is.
        - Refer the patient to community dementia support services e.g. Alzheimers NZ or Dementia Canterbury for further information, support and access to social activities
        - Ensure allied health referrals are made if appropriate e.g. NASC, home OT assessment, Work Assessment and Rehabilitation Service

- Set up reminders in the patient management system for recall for regular monitoring of cognitive impairment e.g. 12 monthly for MCI and more regularly for dementia.
  - In your interactions with the person and their carer or whanau, monitor for elder abuse, carer stress and the need for respite care
  - Consider driver safety and other potential risks and mitigation strategies
- Provide information on living well and positively with dementia
- Provide dementia risk reduction advice for people diagnosed with mild cognitive impairment and dementia including the promotion of healthy lifestyle

Conclusion

Dementia is a condition that has a significant impact on the lives of the individuals diagnosed with it, and their carers and whanau. The expected explosion in numbers of people with dementia has serious implications for health and social services, both financially and from a workforce perspective, with the likelihood of these services being overwhelmed in the not too distant future. It is imperative that dementia prevention is promoted and encouraged. It is also imperative that the dementia care and support provided to people and their carer and whanau is of the highest standard to keep people living well at home for longer to reduce admissions to hospitals and delay entry into institutions. To do this, our workforce needs to be well-trained, integrated and working collaboratively around dementia with a designated navigator to support the person and their carer and whanau.

The challenge is, what changes do YOU need to make in your professional practice to effect excellence in dementia care?

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App Review:

ACLS Rhythm Tutor

Erica Donovan

Mastering ECGs is something that many of us can find challenging. While it's no substitute for getting in there and analyzing them, one option is the ACLS Rhythm Tutor application.

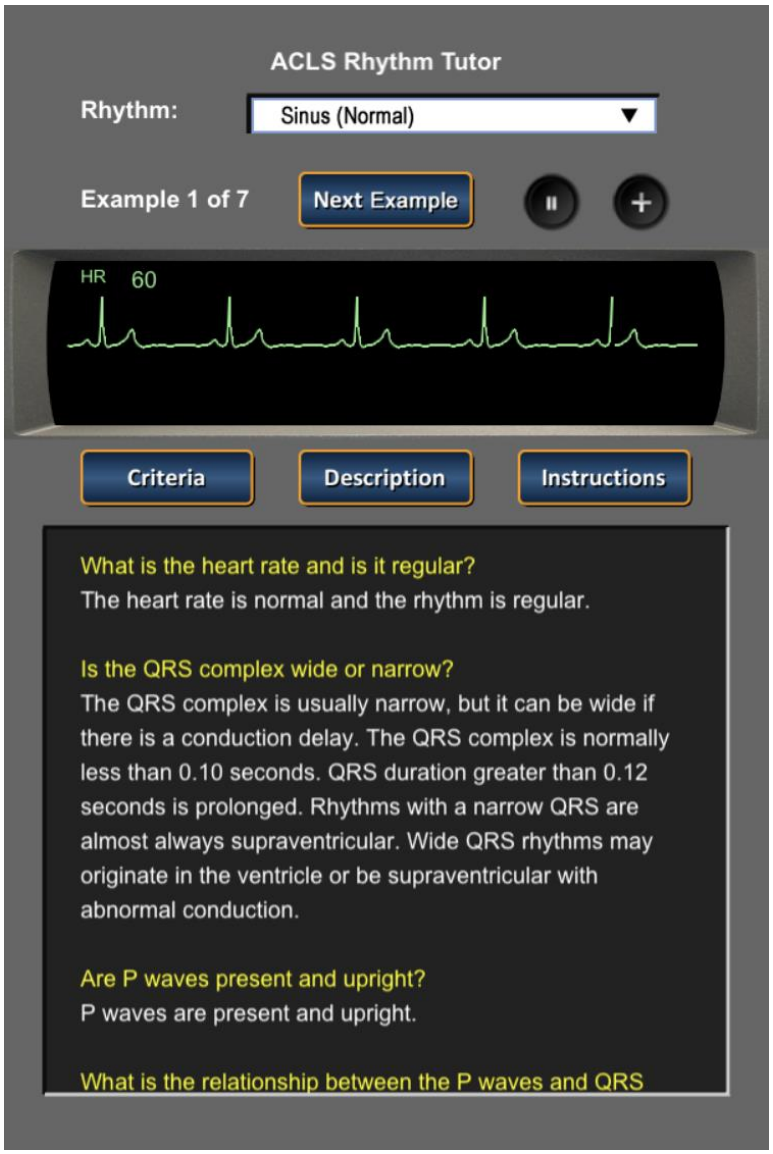
This app is available for both Apple and Android devises for free.

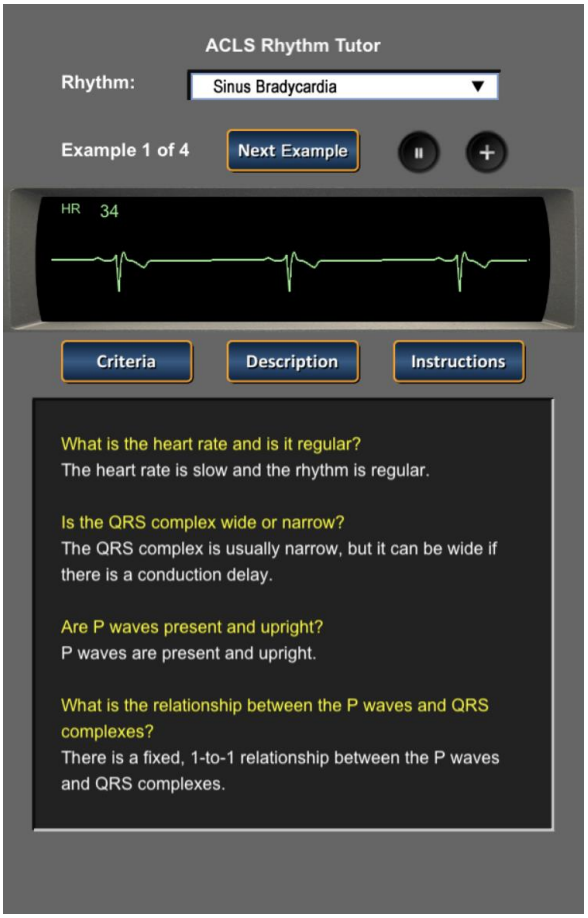
Upon opening the app, you can start identifying normal and abnormal ECG patterns. You get to see the rhythm visually and you can evaluate what it looks like with four criteria.

- What is the heart rate and is it regular?
- Is the QRS complex wide or narrow?
- Are the P waves present and upright?
- What is the relationship between the P waves and the QRS complex?

There are 21 different rhythms to choose from ranging from ones that you see commonly such as sinus rhythm and atrial fibrillation, right up to heart blocks and Torsade de Pointes (which was a new one to me).

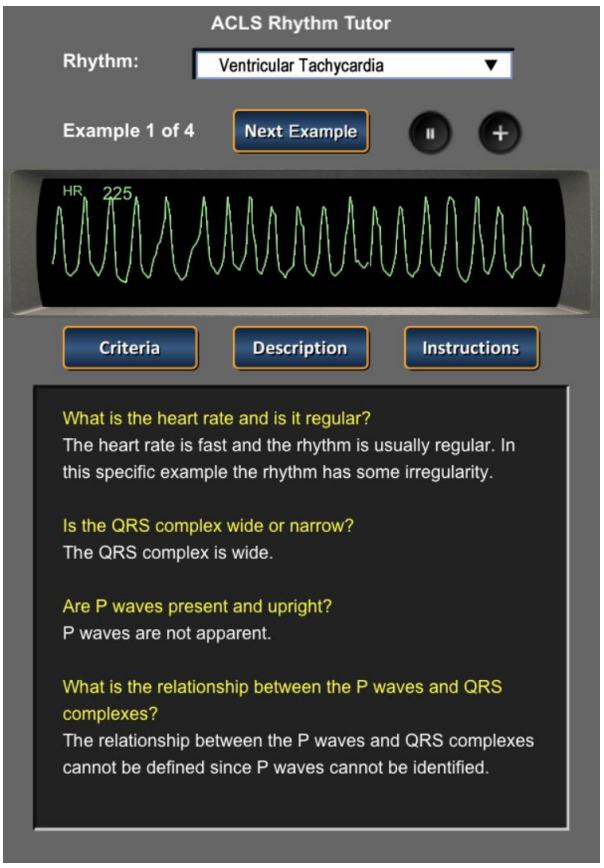
There's also a bit of information about how the particular rhythms are caused within the heart and what kind of heart rates you may see.

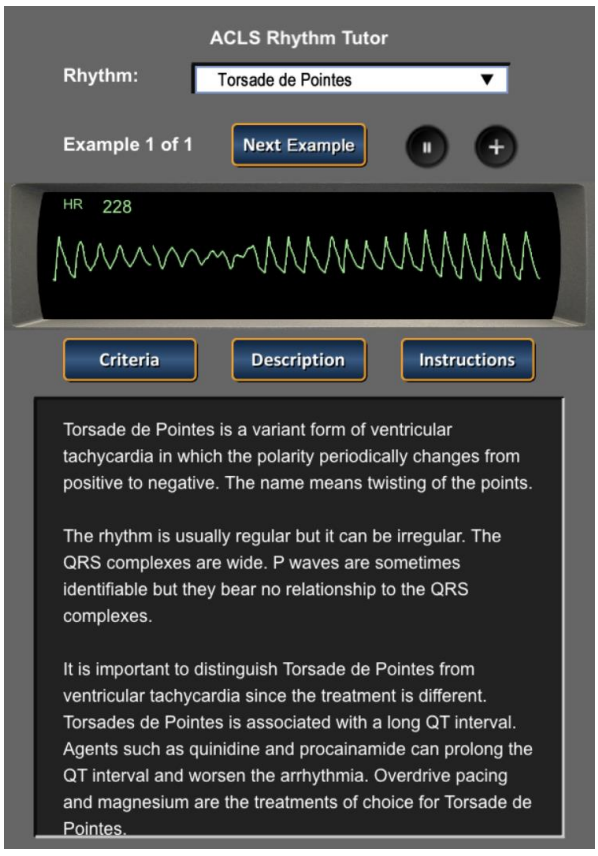




I haven't been hit with any annoying ads during using this app, but one thing that does slightly bug me is that there is a quiz that accompanies the app, but you need to download a separate app to use it. It would be nice if they had incorporated those two features into one app.

If this has pipped your interest in ECGs there are many other resources online including this Life in the Fast Lane guide to free and paid online courses and resources – scroll down to the bottom of the article for the free options. I can also recommend the book ECG Interpretation Made Incredibly Easy.





Deep Vein Thrombosis and Travel

Yvonne Little

Nurse Practitioner

Why is it important for nurses to know and understand about Deep Vein Thrombosis (DVT) and travel?

The answer is simple.

Nurses are generally the front line when someone phones to ask for health advice. So what follows is a quick review of DVT and Travel.

We do not always live in the same area as our families anymore, we are spread far and wide across the world and we now have the ability to travel to far away places on planes rather than long journeys on ships. Hence, we travel further and by means of vehicles that are more cramped and less amenable to moving about easily.

What is a DVT (in a nutshell)?

The cause of DVT as we know is that sitting still slows the blood flow from the legs back to the heart. Therefore, restricting the flow more will occur when travelling because of the restriction of leg room, the biggest issue is the when the shins are compressed by a seat in front of you. So, it doesn't matter whether you fly, drive, take a bus or train journey – leg room is important (and our youth are getting taller so more leg room will be needed in the future). It takes as little as three hours of inactivity on these trips to cause a blood clot.

Remember, DVT's form in the deep veins that go through the muscles not the superficial veins, the most common site for a DVT is the calves but they

occasionally occur in the thighs. (MOH/NZ vein clinic).

Who's at Higher Risk: (we are all at risk, but some more than others)

Women – those who are pregnant or on the contraceptive pill

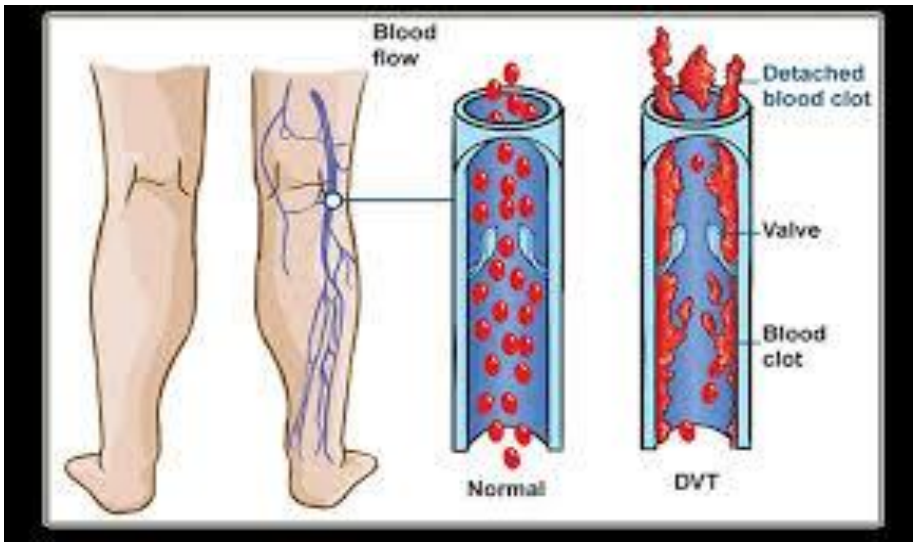
Anyone who has had a recent operation

Those over 40 years of age

Smokers

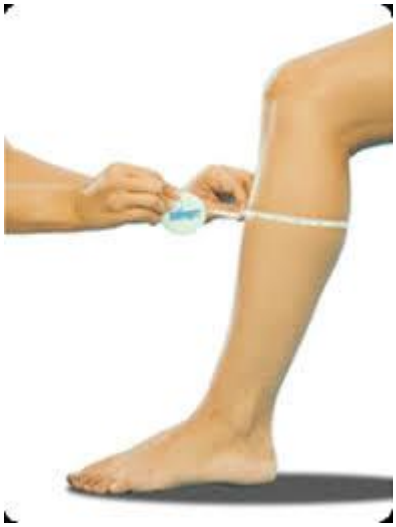
People with cardiovascular disease

People with a family history of blood clotting disorders



Symptoms

Swelling of one lower leg (check difference in circumference)



Tenderness deep in the calf

Warmth

Redness

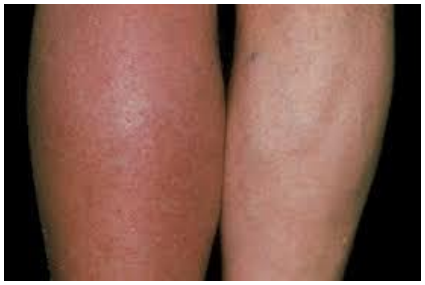
Numbness

Itching

Ulceration of skin (later symptom)

Veins become more prominent, skin can become dusky

www.health.govt.nz; www.medicinenet.com



Diagnosis:

Symptoms the patient presents or phones with is the first clue, if they phone for advice and give these symptoms then they MUST be seen. They will need an ultrasound scan done to confirm or exclude a DVT (whilst nurses cannot request these, it is vital that when concerned it is brought to the attention of a health practitioner who can order this test to be done as soon as possible.

Complications from a DVT:

We want to prevent this wherever possible, they include:

Pulmonary Embolism – this occurs when DVT passes up the veins to the heart it and becomes lodged in one of the blood vessels supplying the lungs, cutting off the oxygen supply.

Post phlebitis/thrombotic syndrome - this can occur in 6 out of 10 people who do not have their DVT treated, the symptoms of this include: calf pain, discomfort, swelling and rashes and in severe cases may develop an ulcer on the skin of the calf. Fortunately, this is more likely to occur if the DVT is in the thigh and these are rarer than calf DVT's.

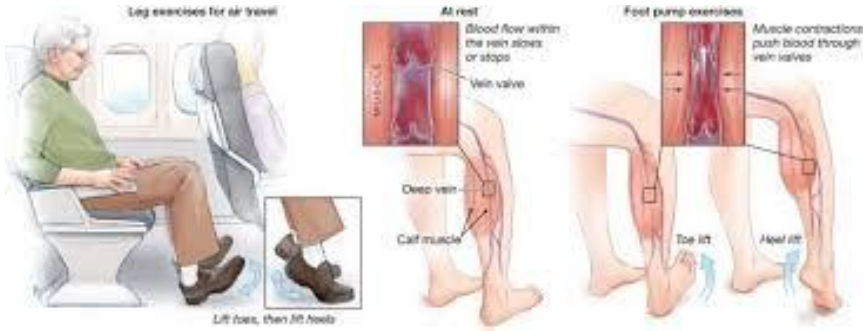
www.medicinenet.com; www.nzveinclinic.co.nz

So, what about treatment?

Ideally, prevention is the best form of treatment and this is where nurses can be proactive in ensuring their patients do not suffer from a DVT or it's complications when and wherever possible.

Therefore, the following should be our advice to all our patients, whether in the high-risk group or not who are embarking on travel:

1. Ensure the have a seat with plenty of leg room (the taller you are the more leg room you will need)
2. Keep hydrated- drink plenty of water (dehydration increases the risk of a DVT occurring), avoiding alcohol or caffeinated drinks as these will dehydrate.
3. Move about – don't' sit for the entire journey
4. Exercise their calf muscles every 30 minutes, its as simple as flexing and rotating the ankles for a few minutes and this can be done sitting down.



5. Sleep – it is not advisable to use sleeping tablets as this will ensure you don't get enough activity during the trip. Try to have short naps rather than long sleeps. (Inactivity is the enemy)
6. Taking ½ and aspirin before flying can be done also, unless medically advised not to do this.
7. Support stocking (should be a must for long journeys, especially those in the high-risk group.

8. Avoid tight clothing around the waist area (tight belts/jeans etc) as this will disrupt the blood flow when seated for prolonged periods. www.health.govt.nz

Should the patient have developed a DVT then once confirmed by ultrasound the treatment will aim to:

Prevent the clot spreading and/or getting larger – anticoagulation, it used to be initially heparin and then six months of warfarin treatment but we can now use another medication which does not require the heparinisation first and that medication is Rivaroxaban. These medications are all dependent on the patient's other co-morbidities of course.

Reduce the risk of post thrombotic syndrome developing – the use of compression stockings.

Prevent a further DVT in the future.

References:

Ministry of Health: Travel and Blood Clots 2015 www.health.govt.nz

New Zealand Vein Clinic: www.veinclinic.co.nz

Medicinenet: www.medicinenet.com

The NZNO Library

Resources For Nurse

The NZNO Library has a wide range of hardcopy and online resources available to support the information needs of members.

Check out the NZNO Library resource lists. http://www.nzno.org.nz/resources/library/resource_lists
Copies of these articles can be provided to NZNO members free of charge. Email Library@nzno.org.nz and let us know which ones you are interested in.

Articles – Ocular Trauma

1. Profile of ocular trauma in patients presenting to the department of ophthalmology at Hawassa University: Retrospective study
Kindie Desta Alem; × Demoze Delelegn Arega; Samson, Tesfaye Weldegiorgis; Bekalu Getahun Agaje & Emebet, Girma Tigneh.
PLoS One; San Francisco Vol. 14, Iss. 3, (Mar 2019): e0213893.
To assess the pattern, presentation and risk factors of ocular trauma among patients treated at Hawassa University, Referral Hospital, Ophthalmology Department, South Ethiopia, 2014

2. Pediatric Ocular Trauma: A Clinical Perspective
Bogie, Amanda L & Bogie, Charles Paul, III.
Pediatric Emergency Medicine Reports; Atlanta Vol. 23, Iss. 12, (Dec 2018).
Ocular trauma can result from blunt, penetrating, or other traumatic injuries to the eyeball, such as a blast or chemical injury. It is estimated that 18 million people worldwide are affected by blindness caused by traumatic injury, with a disproportionate number occurring in the pediatric population.

3. The relationship between ocular trauma and substance abuse in emergency department patients
Chang, Sylvia L; Patel, Vaama; Giltner, John; Lee, Richard & Marco, Catherine A.
The American Journal of Emergency Medicine; Philadelphia Vol. 35, Iss. 11, (2017): 1734-1737.
Eye injury is the second most common cause of visual impairment and a leading cause of monocular blindness in the United States. The purpose of this study was to assess the relationship between ocular trauma and substance abuse among emergency department patients and to assess that relationship with demographic factors, including age and gender

4. Self-Reported Visual Quality of Life After Combat Ocular Trauma

McLaughlin, Andrew, MC USN; Colyer, Marcus H, MC USA; Ryan, Denise S, MS; Sia, Rose K, MD & Weichel, Eric D, MD; et al.

Military Medicine, Supplement; Oxford Vol. 182, Iss. S1, (Mar/Apr 2017): 239-242.

To describe the visual outlook and quality of life of service members after combat ocular trauma. Methods: In a single-

center, prospective observational study of service members sustaining ocular trauma, participants underwent a series of ocular examinations and noninvasive tests, including the National Eye Institute Visual Functioning Questionnaire (VFQ-25).

Articles – Head Injury and Sport

4. Head coaches' attitudes towards injury prevention and use of related methods in professional basketball: A survey

Wilke, J; Niederer, D; Vogt, L & Banzer, W.

Physical Therapy in Sport; Kidlington Vol. 32, (Jul 2018): 133-139

Musculoskeletal disorders represent a major health problem in basketball. With an injury rate of up to 90.9 incidents per 10 000 athlete exposures (Yang et al., 2012), trauma occurrence is much higher than in several other non-contact team sports

6. Epidemiology of Head Injuries Focusing on Concussions in Team Contact Sports: A Systematic Review

Prien, Annika; Grafe, Alexander; Rössler, Roland; Junge, Astrid & Verhagen, Evert.

Sports Medicine; Auckland Vol. 48, Iss. 4, (Apr 2018): 953.

Although injuries to the head represent a small proportion of all sport injuries, they are of great concern due to their potential long-term consequences, which are even suspected in mild traumatic brain injuries. The aim of this review was to compare the incidence of concussions and other head injuries in elite level football, rugby, ice hockey and American Football

7. Study on head injuries in rugby 'a game-changer'

Cleaver, Dylan.

The New Zealand Herald; Auckland, New Zealand [Auckland, New Zealand] 26 Aug 2016: A.8.

Concussion expert says paper linking rugby injuries to dementia legitimises concerns. One of the country's foremost concussion experts has called the publication of research linking rugby concussion and long-term difficulties a "game-changer".

8. Head injuries? There is every reason to watch them like a Hawk

Bathgate, Stuart.

The Herald; Glasgow (UK) [Glasgow (UK)]13 Oct 2015.

DOCTOR James Robson is confident the new system for dealing with head knocks in rugby is working well - and helping to cut down on the health risks in a sport that is becoming more physically gruelling every year. Players can now be taken off the pitch and assessed for any sign of concussion before being allowed to return, and when concussed are now subjected to more subtle and thorough tests before they can play again.

Articles – Deep Vein Thrombosis (DVT)

9. Survey of methods used to determine if a patient has a deep vein thrombosis: An exploratory research report.

By Heick, John D & Farris, James W.

Physiotherapy Theory & Practice. Sep 2017, Vol. 33 Issue 9, p733-742. 10p

The use of evidence-based practice (EBP) is encouraged in the physical therapy profession, but integrating evidence into practice can be difficult for clinicians because of lack of time and other constraints. Objective: To survey physical therapy clinical instructors and determine the methods they use for screening for deep vein thrombosis (DVT), a type of venous thromboembolism (VTE) in the lower extremities

10. Healthy travel: Don't let this common hazard spoil your best-laid plans.

Harvard Women's Health Watch. Mar 2015, Vol. 22 Issue 7, p1-7. 2p.

The article discusses the condition called deep-vein thrombosis (DVT) where blood clots are formed silently and interfere with circulation in the leg causing pain and swelling. It points out that inactivity due to long trips can increase the risk of developing blood clots in the legs. It provides preventive measures that may reduce the risk of DVT when travelling for long periods such as wearing graduated compression stockings, wearing loose clothing and drinking plenty of water.

11. Deep Vein Thrombosis: Risks and Diagnosis

Ho, Wai Khoon

Australian Family Physician, Vol. 39, No. 7, Jul 2010: 468-470, 472-474

Venous thromboembolism, comprising deep vein thrombosis (DVT) and pulmonary embolism, is common in Australia and is associated with high morbidity. This article provides a summary of the risk factors for DVT of the lower limb and discusses the diagnosis of the condition using a diagnostic algorithm incorporating clinical assessment, D-dimer testing and imaging studies.

Articles – Travel Health

12. 5 Stay-Well Travel Tips.

By Kane, Emily A.

Better Nutrition. Nov 2018, Vol. 80 Issue 11, p26-28. 2p

The article offers suggestions concerning the application of herbal tonics to customize blood type. It highlights the significant of herbal medicine for people with blood type A who are vulnerable to degradation of natural killer (NK) cells. Also emphasized is the essential of frequent hand washing to protect against germs.

13. Holiday Pre-Detox.

By Turner, Lisa.

Better Nutrition. Nov 2018, Vol. 80 Issue 11, p47-50. 3p

The article offers suggestions on how to cleanse and de-bloat before the holiday. It suggests brew in the morning through lemon and turmeric for an anti-inflammatory and liver-supportive impacts. Also emphasized is the major role of water in transporting nutrients and remove wastes and match it with cranberry juice for liver stimulation and prevent from accumulation of bacteria.

14. Travel medicine guide.

Pulse. May 2018, p43-44. 2p.

The article presents a guide for travellers on cases of different diseases across the world in 2018. The guide covers diseases such as typhoid, hepatitis A, cholera, tuberculosis and malaria. It offers information on vaccination and treatment regimes for the diseases, as well as special guidelines for pregnant travellers

15. Travel health update.

By Chiodini, Jane.

Practice Nurse. Jan 2018, Vol. 48 Issue 1, p31-31. 1p

Jane Chiodini looks back at how Practice Nurse played a significant role in her career development as a travel health specialist and how the discipline has also developed in the last 30 years

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Course Information

The Primary Mental Health Care course provides the opportunity to expand your ability to relate key mental health concepts to your primary health care setting, while developing advanced assessment and decision making skills.

You will develop specialty knowledge within a holistic framework, while exploring inter-sectorial care and its impact on the health outcomes of people experiencing mental health illness in primary health care.

Courses are 17 weeks in duration and are a combination of online learning and short tutorial blocks delivered predominantly at the Porirua campus.

Content

- Contemporary mental health and addiction approaches
- Assessments and brief interventions - clinical decision making
- Advocacy/rights and self-determination
- Co-existing problems and long term conditions
- Resiliency and leadership
- Trauma informed care

Programme Information

HSC8605 Primary Mental Health Care is an elective course in the Postgraduate Certificate in Specialty Care. This programme offers a range of courses which allows a programme of study that best meets your needs and reflects current and developing research-based practice in relation to health care delivery.

To gain the Postgraduate Certificate you must complete two courses such as Specialty Practice, Clinical Leadership, Forensic Practice, Dual Disability, Advanced Paramedic or Pacific Health.

Further Study Options

Successful graduates may also gain credits towards Masters study.

Block Course Dates

Block courses run: 15-16 July and 23-24 September 2019.

Entry Requirements

Domestic: Registered health professional with current New Zealand practising certificate, Bachelor degree or equivalent; employed in a relevant clinical service for a minimum of three days per week.

International: Must meet domestic entry requirements and also have IELTS 7.0 in each band.

*Fees accurate as at time of print (March 2019).

For current fees and more information, visit www.whitireia.ac.nz