

The Pharmacy Guild of Australia NSW Branch

COMMUNITY PHARMACY & THE NEEDLE SYRINGE PROGRAM (NSP)

Christina Cho Guild Clinical Education Co-Ordinator



Harm Minimisation

- Does not condemn or condone drug use
- AIM: Reduce associated harms to the individual and the community

WHY NSPs?

 Originally funded to reduce the transmission of HIV amongst PWID and the wider community







Statistics

- 800 NSPs across Australia
 - 525 in NSW
- 30 million needles and syringes annually
- Estimated: population of 89,000 – 205,0000
- 2000-2009: 32,050
 cases of HIV prevented





The Needle and Syringe Program

AIM: To reduce the transmission of BBVs among PWIDs

OBJECTIVE: To minimise risk behaviours that have the potential to transmit BBVs

Additional benefits:

- Reduction in other injecting related injuries
- Less difficulty/pain injecting
- Provides support and access to healthcare for many marginalised clients



Australian results : NSP

Financial: an outlay of \$243 million on NSP initiatives resulted in a net financial cost saving of \$1.03 billion

Quality and quantity of life benefits (2010):

- 650 fewer people living with cirrhosis
- 90 Hep-C related deaths prevented
- 4,500 AIDS-related deaths prevented



Pharmacy Fitpack Scheme:

Via Pharmaceutical wholesaler at no charge

If wholesaler is out of stock, PGA can be contacted to assist in supplies

Prices in community pharmacy average around \$3.30 per pack

When fitpack is exchanged = FREE

Upon initial registration into the program = \$385 (GST included) Charge per initial fitpack to customer is pharmacy's decision



The PGA and NSP:

To register for the NSP (initial registration)

Change to pharmacy details

Online request form to be completed

Difficulties purchasing Fitpacks from wholesaler

Access to educational material and/or resources

HOME > GUILD BRANCHES > NSW > PROFESSIONAL SERVICES > NEEDLE & SYRINGE PROGRAM

NSW Pharmacy Needle and Syringe Program

The Needle and Syringe Program is an evidence-based public health program, which aims to minimise the transmission of blood borne viruses amongst people who inject drugs.

Pharmacy Needle and Syringe Program (PNSP) outlets are key contributors to Australia's network of Needle and Syringe Program services, with community pharmacies representing over 50% of the needle and syringe program outlets located in the community. The community pharmacy network is well placed to provide assistance in the distribution of sterile injecting equipment, advice, and referral to treatment services.

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The PNSP is fully funded by the NSW Ministry of Health and is administered by The Pharmacy Guild of Australia (NSW Branch).



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Questions? Enquiries?

Health Services

02 9467 7100

healthservices@nsw.guild.org.au

Guild Clinical

02 9467 7156

Guild.clinical@nsw.guild.org.au



HIV & Viral Hepatitis 2018

Rosie Gilliver

Clinical Nurse Consultant- KRC





Objectives

- To recognise who might be at risk of HIV and viral hepatitis
- To understand the basic epidemiology and biology of HIV and viral hepatitis
- To understand the benefits of identification and treatment of HIV and viral hepatitis
- To know how to reduce the risk of transmission of HIV and viral hepatitis
- To know where to refer for testing and treatment
- To understand the impact of NSPs on HIV and viral hepatitis transmission
 Health





HIV

• HIV = Human Immunodeficiency Virus

• AIDS = Acquired Immunodeficiency Syndrome





NSW HIV STRATEGY 2016-2020

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NSW



Health

OUR PRIORITY POPULATIONS



OUR PRIORITY SETTINGS





NSW HIV strategy 2016-20

To virtually eliminate HIV transmission in NSW by 2020

and to

Sustain the virtual elimination of HIV transmission in people who inject drugs, sex workers and from mother-to-child Sustain the central role of condoms in preventing the transmission of HIV

Reduce sharing of injecting equipment among people who inject drugs by 25%

Assess all people attending public sexual health services and high caseload general practices for PrEP eligibility

Facilitate testing of all recent sexual and injecting partners of people newly diagnosed with HIV

Increase the frequency of HIV testing in priority populations in accordance with risk

Strengthen service integration and models of care to deliver HIV testing in our priority settings

Strengthen systems and service integration for HIV prevention, diagnosis and management for Aboriginal people at risk

Increase the proportion of people with diagnosed HIV on ART to 95%



Newly diagnosed HIV infections in Australia, 1984-2017



a Total includes transgender people and people for whom data on sex was missing.

Source: State and territory health authorities; see Methodology for detail.



Source: Kirby Institute Surveillance report 2018

Figure 1.1.20 Newly diagnosed HIV and HIV exposure category, 2013–2017, by Aboriginal and Torres Strait Islander status



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Source: Kirby Institute Surveillance report 2018

KIRKETON ROA



Acute HIV

- 2-6 weeks post exposure
- Known as 'seroconversion illness'
- Occurs in 50-90% cases



- Fever, pharyngitis, lymphadenopathy, rash, splenomegaly, meningitis
- Many have no symptoms
- Patients will have a high viral load and may have a low CD4 (T cell) count
- Highly infectious at this time
- Window period= may not show up in blood tests





Chronic HIV

- Normal or reduced CD4 count
- Variable viral loads ('set point')
- Symptoms may include fatigue, night sweats, lymphadenopathy
- Immunosuppression (CD4 < 200)</p>
- Opportunistic infections
- Malignancies





HIV transmission

- Occurs via blood and body secretions
- Risk is increased by other STIs, viral load and genetic factors
- Risk is reduced by condoms







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Exposure & Transmission Risk

(source known HIV +ve)

- Receptive anal: 1/70 (ejac), 1/155 (no ejac)
- Receptive vaginal: 1/1250
- Insertive anal: circ- 1/900 uncirc, 1/160
- Insertive vaginal: 1/2500
- HIV not transmitted via kissing, saliva, urine.

Source: National PEP Guidelines- ASHM 2016.





HIV seroprevalence in Australia

- Homosexual men (Sydney) 10%
- Injecting drug users < 1.0% (heterosexual)
- Sex workers (Australia born) 0.1%
- Consider country of origin, and travel overseas
- Prevalence in Aboriginal population is similar even though incidence is now higher, so definitely **not** considered a risk group for sexual contact





Blood exposure

- Risk increased by volume of blood, viral load of source, type of injury
- Needle-stick injury to Health Care Worker 1/333
- Use of contaminated injecting equipment 1/125





Vertical transmission

- Transmission from mother to child
 - risk 15-40%
- Reduced by initiation of maternal medication and treatment during labour
 - risk reduced to less than 1%
- Universal testing?





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HIV treatments

- HAART (Highly Active Antiretroviral Therapy)
- Consists of a combination of usually three drugs
- Proven that HIV treatment should not be delayed once patient is ready. Many people now start at time, or close to diagnosis
- Early treatment has personal benefit (START study), but also public health benefit in terms of reducing the possibility of onwards transmission (HPTN 052)
- Provided at
 - Sexual health services (free tests and consults)
 - Some GPs (need ASHM s100 course)
 - Hospital infectious disease/Immunology
 - Sexual health services can support medicare ineligibles





HIV treatments con't



- Target lifecycle of HIV (reverse transcription, integration, protein cleavage)
- Aim of treatment is to reduce viral load to an undetectable level so immune system (CD4) can recover
- People with undetectable VL are not able to transmit virus
- Not curative.. Virus rebounds if treatment stops
- May have side effects and toxicities.. Newer drugs better
- Needs strict adherence for effectiveness (90% best)
- But may afford almost normal life expectancy





HIV treatments:

- Several Single Tablet Regimens "STRs"
- Guidelines recommend Integrase based therapy first line
 - Triumeq, Genvoya, Descovy/raltegravir
 - Darunavir or rilpivirine combinations ins specific situations
 - Australia follows USA guidelines
- Drug interactions important (booster)
- Most drugs tolerable
 - Nausea, GI upset, headache, dysphoria, rash (rare)







HIV prevention

- Encourage safer sex
- Encourage use of clean injecting equipment (HIV prevalence < 1% in Aust because of NSP)
- Treatment as prevention
- Regular testing- KRC/C180, GP, SHS
- Pre-Exposure prophylaxis- PrEP- at clinics





HIV Pre-exposure prophylaxis: PrEP

$\div ightarrow C$ \bullet Secure | https://epic-nswstudy.org.au



Home About PrEP About EPIC-NSW Join the Study Study Team News For Clinicians Contact us

EPIC-NSW is here

PrEP is a new way for people to protect themselves from HIV.

EPIC-NSW (Expanded PrEP Implementation in Communities in NSW) is bringing PrEP to people at high risk of HIV infection in NSW. EPIC-NSW is enrolling now.

Who?

High risk gay men (unprotected sex/STIs/meth)

- One tablet once a day (Truvada Emtricitabine/Tenofovir Tablets)
- Some people may take it intermittantly

Others if at risk sexually and high risk (partner positive not on treatment)

Now on PBS for high or medium risk people.. Transitioning from EPIC to GPs... all GPs can prescribe







HIV testing and referral

- Sexual health clinics- e.g Kirketon Road/SSHC
- GPs- s100 shared care promoted through ASHM
- Community testing underway for gay men- aTEST-KX
 - Rapid testing available in NSW- MSM or high risk

http://www.acon.org.au/hiv/where-to-get-tested





THE TEST

THE RESULTS



DO YOU NEED A HIV TEST?

CONSENT WITHDRAWAL

PRIVACY

The answer is yes. HIV is now a treatable health condition. The first step to living a healthy life with HIV is to get tested. The Dried Blood Spot (DBS) HIV test is a new, free, easy, private and accurate way to test for HIV. It involves a few drops of blood that you collect from yourself at home. You return the DBS HIV test to us in a reply paid envelope and receive the result by phone, text or email. You don't need to go to a clinic or a doctor to do this test.

www.hivtest.health.nsw.gov.au



NEED HELP?







What is Hepatitis?

- Hepatitis indicates inflammation of the liver
- Most cases are caused by viruses such as HAV, HBV and HCV
- Other causes include other infectious agents, drugs or autoimmune disease





Signs and Symptoms

Acute Hepatitis

- Nausea, vomiting, anorexia, lethargy, jaundice
- Dark urine
- Tender, enlarged liver
- Less than 1% of cases develop acute liver failure







Chronic Hepatitis

- Often asymptomatic
- Early symptoms/disease: tiredness, anorexia, nausea, RUQ discomfort
- Progressive liver disease: peripheral stigmata e.g. spider naevi, palmar erythema
- Advanced liver disease: portal hypertension with ascites, oesophageal varices
- Ankle /abdo swelling
- Easy bruising
- HCC (Hepatocellular carcinoma)





Hepatitis A & B-vaccination

- Effective vaccines for both A&B
- Should screen PWID, CALD, Aboriginal, MSM, sex workers
- Separate vaccines, or combined in Twinrix
- Australian Immunisation Handbook
- NSP also prevents HBV





Hepatitis B virus : HBV

- DNA virus infecting hepatocytes
- 200,000 people with chronic HBV
- Symptoms Acute hepatitis, most asymptomatic
- Transmitted: blood, body fluids
 - 90% of adults clear, but 90% of neonates become chronic

Chronic liver disease in 15-25% over time

Vaccine effective- priority for prevention

Treatment indicated in some situations- tenofovir/entacavir

s100 community prescriber program for GPs- mentoring through ASHM




Geographic Distribution of Chronic HBV Infection



*8% - High 2-7% - Intermediate <2% - Low

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Hepatitis C

- Most common viral hepatitis seen locally among PWID
- Spread: blood and vertical transmission
- Spread via sexual transmission less certain- cluster amongst HIV pos MSM
- Incubation: up to 6 months
 - For every 100 untreated patients:
 - 20 get cirrhosis

 - 5 get cancer
 If left for 30+ years



NSW Hepatitis C Strategy 2014-2020



ACTIONS

PREVENT: **Build on established hepatitis** C prevention efforts

Better management of

- Ensure the Needle and Svringe Program is meeting the needs of at-risk populations
- Continue to implement, and look for opportunities to enhance, drug and alcohol services and drug diversion programs
- Explore the use of notifications to better understand transmission. identify and investigate clusters and implement public health control measures where feasible
- Implement and evaluate other evidence-based prevention strategies

Increase primary care. Aboriginal Community Controlled Health Services, correctional facilities and drug and alcohol treatment

- services offering testing. clinical management, treatment assessment and follow up among people from priority populations
- Support best practice management of hepatitis C and its complications
- Implement programs that support people to effectively manage their condition

- Expand the number and types of services able to provide hepatitis C treatment
- Increase the proportion of clients treated through nurse-led and primary care models
- Prepare to deliver new hepatitis C treatment regimens on an expanded scale
- Support participation in clinical trials

SYSTEM ENABLERS

Surveillance Performance monitoring and evaluation

- Clinical redesign and innovation
- Health systems and policy relevant research
- Workforce development
- Cultural competence
- Community engagement and partnerships
- Effective governance
- An evidence-informed population health approach

PRIORITY POPULATIONS

People living with hepatitis C

- People who inject drugs, especially new initiates · People in or recently in
- custodial settings
- Aboriginal people
- People from culturally and linguistically diverse backgrounds
- Young people who are at risk of injecting



Transmission

- Sharing injecting equipment
- Non-sterile tattooing or body-piercing
- Mother-to-child transmission (< 5% risk)
- Unsterile medical or dental procedures particularly CALD background
- Infected blood or blood products (pre1990)
- ??? Sexual transmission men who have sex with men (MSM)





Not transmitted by

- Sneezing, coughing
- Sharing food or drinks
- Mosquito bites
- Usually not transmitted by sex



NB: Avoid sharing household items such as razors & toothbrushes





Hepatitis C virus: Clinical

- Acute Infection
 - < 5% have acute symptoms
- Chronic Infection

75-80% people develop chronic infection and remain infectious

- ALT elevation: 6-7 weeks post exposure (as early as week 2)
- HCV RNA in serum: 1-3 weeks post exposure
- Anti-HCV: present in serum 20-150 days post exposure (mean 50 days)
- Symptoms: present at week 2-12





Diagnosis

- Anti-HCV IgG positive indicates exposure
- Raised ALT generally indicates liver inflammation
- Hepatitis C RNA positive indicates active and infectious disease state (as early as 6 weeks post exposure)
- Fibroscan shows how much liver damage has occurred
- Genotype helps choose drugs and length of treatment





Prevention

- Education
- Alternate routes of administration/OST
- Clean injecting equipment
- No current PEP or PrEP against HCV





How to decide who needs treatment?

- All people with Hep C should be offered treatment
- Can be done at KRC
 - Stage of liver disease (fibroscan)
 - Co-morbidities
 - Drug/Alcohol/mental/social
 - Readiness for treatment/Adherence
 - Clinical trials
- Those delaying therapy
 - Advice about reduction of progression
 - Regular follow-up and prepare the client for eventual treatment





The HCV diagnosis and care cascade, 2016-17





Adapted from Dore G, et al AVHC 2018





Number of prescriptions per month

Figure 9: Absolute frequency (A) and relative frequency (B) of prescriber types in each month for individuals initiating DAA treatment during March 2016 to March 2018 in Australia



Source https://kirby.unsw.edu.au/sites/default/files/kirby/report/Monitoring-hep-C-treatment-uptake-in-Australia_Iss9-JUL18.pdf



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THE LATEST HEP C TREATMENTS

TALK TO YOUR DOCTOR, NURSE OR CLINIC ABOUT THE NEW CURES FOR HEP C



WHO ARE THEY FOR? ADULTS WHO HAVE HEP C AND A MEDICARE CARD

MOST PEOPLE HAVE NO OR VERY MILD SIDE-EFFECTS * FOR A SMALL NUMBER OF PEOPLE, TREATMENT MAY LAST LONGER

IMPORTANT NOTE: TO MAKE SURE YOU ARE CURED, YOU NEED TO GET A PCR BLOOD TEST AT LEAST 12 WEEKS AFTER YOU FINISH YOUR TREATMENT.





Testing for Hepatitis C

- KRC/Sexual health/Primary care clinic
- GP practice
- Refer to those you come across into care
- Hepatitis NSW can assist with positive diagnoses
 NUAA.org.au peer-led support- workers
 Hep.org.au community based support resources
 ashm.org.au health care provider resources





Importance of NSP

- IDUs, sex workers, MSM and 'at-risk' young people are commonly seen in NSP and outreach settings
- High risk for HIV and hepatitis
- Epidemics continue to be seen among these populations
- Transmission minimised by education from NSP workers
- Highly cost effective public health activity





15-20% report receptive sharing

Figure 28: Receptive Syringe Sharing in previous month in NSW, 2013 - 2016 (%, 95% CI)





Map 1.1: Global availability of needle and syringe programmes in the community and in prisons



NSP available in the community and prison

NSP not available

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1ap 1.2: Global availability of opioid substitution therapy in the community and in prisons

OST available in the community

OST available in the community and prison

OST not available

Impact of Needle Syringe Programs

From 2000-10- 25,000 cases of HIV avoided by NSP (+90,000 HCV)

Reduction in incidence 30-70% from 2000-2010

1 dollar spent= 1.5-5.5 dollars saved (av. 4 \$)

Figure 4.2 Annual costs of treatment of diagnosed cases of HIV avoided by NSPs (Not discounted)







Rosie.Gilliver@health.nsw.gov.au





Naloxone Developments

Rosie Gilliver Clinical Nurse Consultant

Kirketon Road Centre (KRC)





Learning Objectives

- An overview of naloxone?
- ORTHN project, what is it and what does it mean for the rest of us?
- What's happening at KRC
- What can you do as community pharmacists?





Increasing OD Deaths in the last Decade



Australia's Annual Overdose Report 2016, Pennington Institute, 2017





Age of opioid OD deaths is rising



Australia's Annual Overdose Report 2016, The Pennington Institute, 2017





Changing profile of all drug related deaths



Australia's Annual Overdose Report 2016, The Pennington Institute, 2017





What is an Opioid Overdose?

- Taking **more** of an opioid drug than the body can handle
- Opioid class drugs 'depress' the respiratory system causing breathing to slow down, become shallow and then stop altogether.

The person may first 'go on the nod' or just 'drop', become unconscious, turn blue (due to lack of oxygen), and have a seizure.

The heart may then stop, leading to death.





Risk factors for opioid OVERDOSES

• Mixing opioids with other sedating drugs:

- Alcohol, benzodiazepines, tricyclic antidepressants, anti-psychotics
- Using again after a period of reduced tolerance so after:
 - hospital discharge
 - drug-free treatment (e.g. detox, rehab)
 - incarceration (prison, lock-up)
- Injecting instead of other routes (oral, snorted, smoked)
- Using a greater amount (or purity) of opioid than usual
- Using alone no one able to call for help
- Having other health problems (e.g. major infection, fever, respiratory or liver disease, older age)
- Using in unfamiliar places (unknown dealer, drugs, location, people)





Consequences of Overdose

Death

- Brain damage (cognitive impairment)
- Permanent muscle/nerve injury (fascial compartment syndrome)
 - Kidney failure (due to rhabdomyolysis)
 - Psychological trauma (witnessed or experienced)





Evidence-based interventions that reduce opioid Overdose deaths

1. Opioid substitution treatment

2. Supervised injecting rooms

3. ORTHN programs







HARM REDUCTION FOR PEOPLE WHO USE DRUGS

- 6 All people from key populations who inject drugs should have access to sterile injecting equipment through **needle and syringe programmes**.
- 7 All people from key populations who are dependent on opioids should be offered and have access to **opioid substitution therapy**.
- 8 All people from key populations with harmful alcohol or other substance use should have access to **evidence-based interventions**, including brief psychosocial interventions involving assessment, specific feedback and advice.
- 9 People likely to witness an opioid overdose should have access to naloxone and be instructed in its use for emergency management of suspected opioid overdose. NEW RECOMMENDATION



CONSOLIDATED GUIDELINES ON HIV PREVENTION, DIAGNOSIS, TREATMENT AND CARE FOR KEY POPULATIONS

JULY 2014

(EY POPUL)

- 20 years experience in >20 countries
- Large scale implementation in parts of USA, UK
- Since 2012 pilot projects commenced in several Australian states, now moving into 'routine care'





What is Naloxone?

- Short acting opioid antagonist
- peak duration of action = 5-20 min
- half life 30-60 mins



- Naloxone 0.4mg ampoules or Prenoxad in 2 ml pre-loaded syringe for IM administration available on the PBS
- S3 medication can be prescribed by medical or nurse practitioner for take home supplies
- Good Samaritan' legislation applies in NSW
- Available over the counter at pharmacies
- Nyxoid[®] (intra-nasal naloxone) registered by the Therapeutic Goods Administration as a Schedule 3 medicine in September and anticipate it will be available in 2019 ? price







Costs

Cost of naloxone Ampoules

- Wholesale to LHD: approximately \$20 for 5 ampoules x 0.4mg each
- Community pharmacy between \$20-30 for 5 ampoules
- Overdose prevention kits made at KRC = Estimated \$10 / pack



Cost of Prenoxad

• Approximately \$40-60 for 2mg prefilled syringe 5 x 0.4mg doses





The Overdose Response with Take Home Naloxone (ORTHN) Research project

- State wide translational research project involving 5 LHDs and 1 NGO
- SESLHD, Sydney LHD, HNE, SWSLHD, St Vincents, Murrumbidgee LHD and MSIC
- NUAA key partners

- Protocol included training & supply of naloxone by non-medical staff (e.g. nurses, NSP workers, social workers) under protocol
- Train the trainer model to credential staff
- Over 600 clients supplied with naloxone
- Evaluated highly by both staff and client perspectives





ORTHN

- Staff felt training suitable, demonstrated improved skills
- Training of clients took about 15 mins
- Clients demonstrated improved knowledge post training and confidence to use naloxone
- NUAA staff contacted subset clients post training
- High satisfaction, and 10% of clients had used naloxone since training

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Cost and ease of access was key component
 Health





What's happening @ KRC

In 2017, KRC received approval for nurse-initiated supply of naloxone, and KRC also participated in the Overdose Response and Take Home Naloxone (ORTHN) Program which crucially enabled credentialed non-medical health workers (e.g. health education officers, nurses, counsellors, NSP workers) to supply (THN)

• KRC has used these non-medical models in a variety of settings, where marginalised, often homeless, clients at high risk of overdose can be engaged





Results:

• THN delivered on 242 occasions to 211 clients during the 8 month study period. 78% initial, 22% replenishment (30/month)

• In the 8 months prior to non-medical supply THN was delivered in 95

occasions to 82 clien 12/month) Male Female Aboriginal 28%







Talking to someone about OD Management:

- 1. Avoid having an overdose
 - Know the risks & how to reduce them
- 2. Assess someone who has overdosed
 - Recognise the signs of an opioid overdose
- 3. Treat someone who has overdosed
 - Emergency response
 - When & how to use naloxone





What can you do?

- 1. Stock naloxone in your pharmacy
- 2. Promote the use of naloxone and encourage people who inject drugs or use prescribed opioids and their peers or family to carry it with them
- 3. Know where clients can access naloxone if they cannot afford to buy it (ie KRC, AOD services) or encourage them to get a script from their GP if they hold a healthcare card.







Contact at the Kirketon Road Centre:

rosie.gilliver@health.nsw.gov.au

Phone: 02 9360 2766

