



# Discussion Paper:

## Antimicrobial Resistance

Sept 2014

The Queen's Nursing Institute's Homeless Health Network shared their views on effective behaviour change strategies on antimicrobial resistance, when working with homeless and vulnerable patients.

### Summary

- Health professionals play a key role in educating vulnerable and homeless patients on infection prevention, when and how to use antimicrobials.
- Health professionals have developed a range of innovations to explain information to patients, using images, training workshops, self-care programmes and technology.
- Informal evidence here suggests homeless patients are less likely to request antimicrobials than the housed population, though more data is needed.
- Homeless patients are likely to be a higher needs group for antimicrobials, given their risks of serious infection.
- Homeless patients often present when they have already reached a point of critical ill health. Infections could be more effectively managed without antimicrobials, if medical professionals had earlier contact with the patient.
- Health professionals report poor adherence to finishing courses of treatment, and potentially dangerous second hand antimicrobial use in homeless (particularly drug-misusing) patients.
- The living conditions of patients (in squats, sleeping rough or in hostels), and those misusing substances, present challenges to infection prevention.
- Collaborations of local health professionals can help to solve problems such as how to improve the use of antimicrobials by those with an alcohol addiction.

## How to change people's behaviour, so they ask for antimicrobials when they really need them and so that they use them correctly

Comments varied widely from *"there is no point educating people who are homeless or inappropriately housed - it is the services that need educating to deliver their services in an appropriate way"* through to *"I think that the onus is largely on health staff to educate patients at every opportunity that antibiotics will be ineffective in tackling viral infections."*

Interventions listed that had **reported or suggested effectiveness** include:

- Teaching self- management of simple illness. This also improves patient's self-esteem.
- Education drives on antibiotic resistance in schools.
- Interactive hand- washing workshops using fluorescent screening. This can be incentivised with vouchers and a healthy lunch.  
*"Hand washing was a simple but effective method of conveying harm reduction utilising the florescent screening to show them how germs are spread and why they could result in the need for further antibiotics and why this was bad due to resistance."*
- Advising all clients on:
  - the need for hand cleanliness
  - the best way to wash hands and when to wash hands
  - to take a course of treatment without stopping
  - to think before seeing the GP for antibiotics where there appears no need
- Showing patients pictures of abscesses, cellulitis and wounds to improve understanding of which are common and which are life threatening. *"This has been very effective in getting people with low literacy to come in and show us their injuries and infections as soon as they begin to develop and thus get earlier intervention "*
- 'Making Every Contact Count' (MECC), Public Health Wales 2013, *"this is an ideal way of getting the message across about infection control, use of antimicrobials and how these should be used correctly."*
- Auditing the monitoring of prescribing antimicrobials (e.g. Public Health Wales)

## Patient demand

Some professionals reported that **over-requesting antimicrobials was unlikely** amongst homeless and vulnerable patients:

*"The client group we support are rough sleepers, squatters, sofa surfers and living often in emergency or temporary accommodation. Often they are highly unlikely to have a GP and would not request medication of this nature."*

*"Worth noting that support need presentations % wise here are roughly in the following order - Alcohol, Mental Health and Other Substance Misuse. We do however support a number of chaotic 'complex needs' clients who have all three issues and would be more interested in medication if swopping things with their mates like painkillers. "*

*"In my experience, the homeless people that I work with rarely ask for antimicrobials. They tend to put off attending the doctor or hospital for as long as possible and present much later than other members of the general public."*

## Timing key

Professionals also acknowledged that **the point at which health professionals see homeless patients** would have a large bearing on their ability to deliver effective behaviour -change interventions on antimicrobial resistance.

*“We often have to coerce them in to see a Nurse who attends our Drop In centre twice a week; hence any decision to prescribe medication would be there initially. They also present at A&E usually when any ailment or infection has progressed due to lack of treatment; again they would be prescribed by the medical staff on presentation at A&E. Sadly often had there been an earlier intervention some infections could have been better managed or prevented. We do advise people to attend a clinic where there is a GP but whether they make the effort to attend given their often poor physical and mental state is ‘hit and miss’”.*

*“Many of my patients will present with life threatening infections that could have been treated more effectively had the patient sought earlier advice. “*

## Patients’ need for and understanding of antibiotics

Professionals reported that homeless and vulnerable patients were currently **a higher needs group for antibiotics** due to increased infections and wounds. Some had developed alternative strategies:

*“This group will more often than not require antibiotic therapy for wound infections and varying chest infections as a result of lifestyle and elements out of their control such as accommodation.”*

*“With regards to wound care we are tending to use more topical treatments including honey and silver to reduce the need for systemic antibiotics.”*

*“As role involves working with patients who are often immunocompromised through sleeping rough and substance dependency the threshold for prescribing antibiotics is possibly lower.”*

Professionals also reported that in general **understanding of antibiotics was low**, but that many health professionals had **developed initiatives and tactics to improve awareness**.

*“Within the cohort of homeless/substance misuse service users understanding of antibiotics and when they are appropriate is low, however so is their immunity.”*

*“I often have individuals who present with sore throats. Explaining that sore throats’ are usually viral in origin, will not respond to antibiotics and offering self-help actions patients tend to accept”*

## Non-compliance and use of second-hand antimicrobials

Health professionals working with the homeless reported that **non-compliance** was an issue.

*“I believe that the bigger issue is that most do not complete a course of antimicrobials as prescribed. Once they feel better or the infection appears to have settled they stop taking them. The remaining medication is kept in reserve.”*

The network also reported to us that there were incidences of **second-hand use**.

*“I often find that those with drug misuse issues who have skin infections such as abscesses and cellulitis will seek out unused antibiotics from others rather than face the perceived shame and embarrassment of consulting with a GP.”*

## How to change people's behaviour to prevent infection and reduce the spread of resistance to antimicrobials

### Interventions that were effective included:

- **Communication**
  - Producing pictorial flyers i.e. Hypothermia
  - Translating information into Eastern European languages.
  - Offering written information alongside verbal discussion
  - Giving out standard information – same health messages from all health professionals
  
- **Clinical advice**
  - Health professionals ensuring patient understands how and why to take medication
  - Taking the time to effectively explain:
    - Antibiotics are totally ineffective against viral infection
    - That it helps the immune system in the long term to fight off infection themselves
    - The risk of overprescribing antibiotics for us all
    - Emphasising return if symptoms worsen/further concerns, for review
    - Antibiotics upset the natural gut flora, and the side effects
    - That it is natural and normal for our bodies to naturally try to fight off infection
    - Hand washing is the best course of action to prevent spread, and other basic hygiene methods (e.g. disposable tissues).
  
- **Training workshops**
  - Broad-ranging sessions on self-care and personal hygiene run by Health Care Assistants. These include how to avoid cystitis, banish nits, and how to prepare chicken
  - A six week programme adapted from the self-care programme which we have called 'Build a Better You'. A programme tailored according to the presenting needs of service users explaining in simple terms how the body works, impact of drugs and alcohol and antibiotics.
  - Workshops and sessions on placing people in the recovery position and very basic First Aid
  - Educations of groups of rough sleepers at drop-ins or hostels.
  - Naloxone Awareness and Health and Hygiene sessions.
  - *Staff education, audits of practice and education of all employees including domestic staff is fundamental. There are training packages, tool kits to support people in behaviour change which are part of the MECC (Public Health Wales 2013). Hand Hygiene monitors have been very effective in changing behaviour, where they put their hands under the ultraviolet light after washing and can see the areas that have not been cleaned effectively. This raises the awareness of hand hygiene; this method is also used with our nursing students."*
  
- **Outreach health clinics**
  - Encouraging health professionals to hostels and daycentres.
  
- **Hygiene**
  - An ultraviolet light for hand hygiene
  - Hand washing using the UV lamp that shows up the areas that people have failed to wash effectively, combined with 'flu immunisation sessions.

- *“Hand hygiene and other infection control measures are the most effective means of preventing the spread. Public Health Wales have developed a document for ‘care homes’ which covers all aspects of staff, patients and visitors health. This information can be transferred to people living in temporary accommodation or homeless, high risk areas are where people share eating and living accommodation.”*
- **Meeting basic care needs**
  - Shower facilities, medical attention and food
  - A cook and taste to entice people with a free meal.
- **Use of peers**
  - Working with positive parental and peer pressure i.e. peers carrying Naloxone

## Challenges

- Raising public awareness – with public of ineffectiveness of antimicrobials for viral conditions
- *“People’s beliefs (superstitions), media and culture play a part in behaviour which is often passed down from generation to generation and firmly rooted in their beliefs. These are difficult concepts to break”*
- A lot of them are in squats for various reasons mainly they have no recourse to public funds to we are unable to process a claim and get them into a Hostel. Again the living conditions in a squat are not conducive to healthy living for all the obvious reasons.
- The use of antibiotics in individuals who are alcohol dependent – the current local formulary recommends antibiotics whose regime is 3 or 4 times daily. This is very difficult for some. Personal practice is to prescribe an alternative which is second line or for those with penicillin allergy which is twice daily.
- It is difficult when deciding to use antibiotics when working in the hostel environment where the risk of transmitting infection is greater when large numbers of individuals are living in close proximity.

## Collaboration of health professionals

*“Locally we have an antimicrobial formulary which is joint publication between medicines management community and acute trusts GPs and microbiology. This is reviewed annually, where aspects such as cost, resistance etc. are considered. If a prescription is issued which is not listed on the local formulary the medicines management team will contact the prescriber to identify why the decision was taken. This is quite valuable as it enables the prescriber to discuss rationale and can be used to influence the review of the formulary. All non-medical prescribers attend regular updates”*

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