

# **Sample Injection Safety Leaflets for Health Care Providers**

**developed by**

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**The text on the following pages is an English translation of training materials developed by the MOH, Mongolia to help their health care providers protect themselves, their clients, and the community.**

**The materials were produced in collaboration with the Safe Injection Global Network (SIGN).**

**The Mongolian originals are beautiful color pamphlets, but the files are too large for easy download and use. Only the textual content of the pamphlets is included in this document.**

**For Adobe Acrobat versions of the full-color pamphlets,  
visit the SIGN website at [www.injectionsafety.org](http://www.injectionsafety.org)  
or email SIGN at [sign@who.int](mailto:sign@who.int)**

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# The Good Prescriber's Guide

## *to safe injections*

Injections are one of the most common medical procedures, with about 16 billion injections administered every year worldwide. However, as many as 70% of these injections are either completely unnecessary or could be avoided with the prescription of an oral medication instead.

### *Are injections more effective and faster acting than oral medication?*

Many injectable antibiotics, analgesics and vitamins have equivalent oral preparations that are **just as effective and fast acting** as their injectable formulations. **However they are much safer for your patient.**

### *Why are injectable medications just as effective in most cases?*

First, the intramuscular route of administration does not improve nor accelerate the availability of the active component in the body. In some cases, the availability is lower or more irregular. Thus, intramuscular injections are indicated when a patient cannot swallow, when they vomit or can't absorb medications in their intestine. Second, while the intravenous route of administration makes more drug available faster, in most cases observed in primary care, oral medications are sufficient. **Intravenous infusions should be limited to the emergency treatment of severe, life threatening conditions.**

### *Why are oral medications safer?*

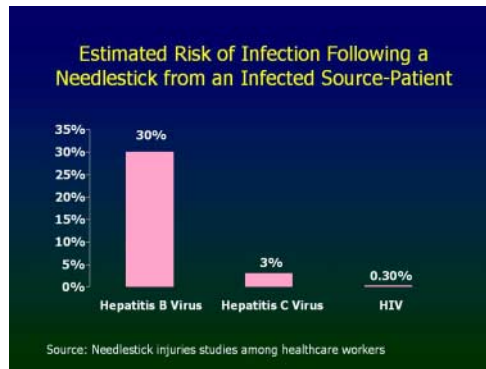
Any skin piercing procedure carries a risk of transmitting blood borne pathogens such as hepatitis or HIV. Breaks in infection control are common putting human lives at risk.

### **Did you know -**

Hepatitis B virus (HBV) is highly infectious and causes the heaviest burden of disease. Unsafe injections account for 33% of new HBV infections in developing and transitional countries with a total of **21.7 million people** infected each year.

*A number of characteristics make HBV a particularly infectious pathogen in the healthcare setting. First, infected patients usually have a very high concentration of virus in their blood. Second, the transmission potential of HBV through injections is a hundred times higher than for HIV. Third, HBV persists in the environment in healthcare settings for at least a week when surfaces have been contaminated with infected blood. Because of these characteristics, HBV can be transmitted from patient to patient through unsafe injections, even if needle and syringes are not shared among patients. Other unsafe practices, including use of large multi-dose vials, reuse of injection equipment on the same patient and working in a contaminated environment are sufficient to transmit HBV through injections, particularly in hospitals.*

**Figure 1: Estimated risk of infection following a needlestick injury from an infected source patient.**



**Concentration of HBV in various body fluids**

**High** - Blood, serum, wound exudates

**Moderate** - Semen, vaginal fluid, saliva

**Low/undetectable** - Urine, feces, sweat, tears, breast milk

Unsafe injections represent the most common cause of hepatitis C (HCV) infection, annually accounting for 42% of new cases, infecting some **2.7 million people**.

Nearly two percents of all new human immunodeficiency virus (HIV) infections are caused by unsafe injections with a total of **96,000 people** infected annually. HIV is the virus that leads to AIDS, for which there is no cure.

*HBV, HCV, and HIV are chronic infections which, lead to disease, disability and death a number of years after the unsafe injection. Those infected with hepatitis B virus in childhood will typically present with chronic liver disease by the age of 30, at the prime of their life. This has a dramatic effect on national economies with an estimated 1.3 million early deaths, loss of 26 million years of life, and incurring direct medical costs of US\$ 535 million annually as a direct consequence of unsafe injection practices.*

***But my patients won't be exposed to the risks of unsafe injection practices***

Can you really be sure? Unsafe injection practices are much more common than you might think and range from the transmission of infection through re-use of injection equipment or inappropriate use of multi-dose vials, to permanent injury from incorrect administration. You may not be present when the injection you prescribe is administered. Unless you can **absolutely guarantee** the safe delivery of the injection it is **much safer** to prescribe an oral medication instead.

*Example: Unsafe injection practice*

*The common practice of injecting children in the buttocks carries a risk of paralysis from damage to the sciatic nerve.*

***But sometimes my patients request injections***

This is the most common reason given for prescribing injections. In a recent study carried out in Mongolia nearly 70% of prescribers reported that their patients preferred injections for the treatment of conditions that could be treated with oral medications. However, only 28% of community members reported that they would prefer an injection in the treatment of fever.

Sometimes, prescribers can get the wrong impression about their patient's preferences or they may be influenced by a smaller minority who indeed prefer injections and voice their preference strongly. In fact, your patients may well be open to, and indeed greatly appreciate, a prescription of oral medication. What a patient wants above all is good explanations about their disease and their treatment. If you take the time to explain what is best for your patients, they will accept oral medications.

*Whenever possible suggest oral medication, and if necessary take a little time to discuss the reasons why orals are safer. You may be surprised how successful this can be.*

**Did you know -**

Mongolia has one of the highest frequencies of injections in the world, with an average of 13 injections per person per year. In some countries, injection frequency has fallen to less than one injection per person per year.

*Example: In Western Europe, injections used to be very popular in the 1960s. However, doctors there now know that effective oral alternatives are available in most cases. Thus, prescription of an injection is now a very uncommon event and injections are almost solely used for immunizations which require injections. Better communication between patients and providers have led to the elimination of dangerous and unnecessary injections.*

## MONGOLIA

Most common conditions for which injections are prescribed:

*pneumonia*  
*genito-urinary infections*  
*cardio-vascular diseases*  
*general malaise*

Most commonly prescribed medications:

*antibiotics*  
*vitamins*  
*anti-hypertensive drugs*

***IN MOST, IF NOT ALL CASES ORAL ALTERNATIVES  
COULD BE PRESCRIBED***

***For more information refer to the new 'standard treatment guidelines'***

***Help us to reduce the number of unnecessary  
injections and infusions in Mongolia.***

**You have a very important role to play.** Your professional knowledge and experience will reassure patients and encourage them to accept the treatment you prescribe. **Prescribe oral medications wherever possible.** Remember you will not always be able to ensure the safe delivery of injections for your patients, especially when family, friends or other informal providers give them in the home. Prescribing an oral medication protects your patient from harm. **Together let's create a new social norm for oral medications in Mongolia.**

***Help us to protect our injection providers.***

**You have a very important role to play.** Patients are not the only ones at risk from unnecessary injections. In a recent study as many as 70% of injection providers in Mongolia reported suffering needlestick injuries in the past year, with an average of 2.6 injuries per provider per year. Such injuries carry a high risk of infection with deadly diseases such as hepatitis and HIV. **Help protect the health of injection providers by reducing the number of unnecessary injections in Mongolia.**

***Help us to protect our precious healthcare resources.***

**You have a very important role to play.** Oral medications are usually cheaper than the cost of an injectable preparation and the cost of a syringe. They are cheaper for the patient and cheaper for the health system. Remember the health system belongs to us all and we have a responsibility to make the most of our precious healthcare resources. However, the biggest savings are made by preventing deadly infections such as hepatitis B, hepatitis C, and AIDS, which lead to a tragic loss of life, a loss of productivity and incur expensive inpatient treatment. **Help protect our precious healthcare resources by prescribing oral medications.**

*Help us to protect our environment*

**You have a very important role to play.** Every single injection that is prescribed requires the use of a disposable syringe and needle, which once used is contaminated and must be carefully disposed of after use. There are no simple solutions to disposing of metals and plastics and the easiest way to protect our beautiful environment is to avoid creating the waste in the first place. **Help protect our beautiful Mongolian environment by prescribing oral medications.**

# Needlestick injury – it could happen to you!

**FACT:** Needlestick injuries expose you to a number of blood borne pathogens that can cause serious or even fatal infections. The most serious health risks are:

- Hepatitis B virus (HBV)
- Hepatitis C virus (HCV)
- Human immunodeficiency virus (HIV) – the virus that causes AIDS

Hepatitis B vaccination is recommended for all health care workers. HBV vaccine has proved highly effective in preventing infection in workers exposed to HBV. **However, no vaccine exists to prevent HCV or HIV infection.**

## ***PREVENTING NEEDLESTICK INJURIES IS THE BEST WAY TO PROTECT YOURSELF FROM THESE DEADLY INFECTIONS!***

**FACT: *Who is at risk of needlestick injury?***

Any worker who may come into contact with needles is at risk including *nursing staff, feldshers, lab workers, doctors, housekeeping staff and sanitation workers.*

**FACT: *How common are needlestick injuries?***

In a recent study carried out in Mongolia nearly 70% of health care providers reported that they had suffered a needlestick injury in the past 12 months. The annual rate of needlestick injuries per provider was 2.6. However, at least one provider admitted to having as many as 15 such accidents last year!

**FACT: *What kinds of needles usually cause needlestick injuries?***

- Hypodermic needles
- Blood collection needles
- Suture needles
- Needles used in IV delivery systems

***DANGER!***

**FACT: *What is the most common way to get a needlestick injury?***

Needlestick injuries are most often associated with the following activities:

- Recapping needles
- Transferring a body fluid between containers
- Failing to dispose of used needles properly in a puncture proof safety box

### *How can I protect myself?*

- Avoid the use of needles wherever possible. For example, avoid giving injections where an equivalent oral medication is available. It's much safer for you and it's also much safer for your patient.
- Avoid recapping needles. Instead **immediately** place them uncapped into a safety box.
- **THINK AHEAD** and plan the safe handling and disposal of needles before using them. For example make sure there is a safety box available in the immediate area where you give injections.
- Don't open or empty the safety box. It should be stored in a safe and secure place until it is ready for burning.
- Never fill a safety box more than three-quarters full. If you need to transport it to another room or to a disposal site, carry it very careful, if possible holding it at the top, above the level of the needles.
- Protect yourself with hepatitis B vaccination

### *How can I protect others?*

- Ensure that ALL staff in your area are warned of the risks, and given appropriate training. This is especially important for housekeeping staff or sanitation workers who do not have specialist medical training.
- If you observe such dangers, gently point them out to your colleague. If you take time to explain the risks they will greatly appreciate your concern.
- Ensure waste is disposed of properly within the facility. It is your responsibility to ensure that **no** infected waste reaches the community, where items such as needles and syringes are especially attractive to young children.

*REMEMBER YOU HAVE A RESPONSIBILITY TO PROTECT NOT ONLY YOUR OWN CHILDREN, BUT YOUR FRIENDS AND NEIGHBOURS CHILDREN TOO.*

**NEEDLESTICK INJURIES - THE BEST PERSON  
TO PREVENT THEM IS YOU!**