

Appendices

Appendix 1: Explanation of “protective factors”

This information is provided as additional context and background on how these behaviours are protective against IRIDs for people who inject drugs. It is important to note that these protective factors are not considered as either/or, and it would be considered best practice to use all of these factors when injecting.

For an interested reader, we also refer to the following online harm reduction resources that have been developed for and by people who inject drugs:

<https://www.nznep.org.nz/media/pdfs/585.pdf>
<https://nznep.org.nz/assets/img/Resources/Filtering-Booklet-NZNEP.pdf>

<https://harmreduction.org/issues/safer-drug-use/injection-safety-manual/safer-injection-basics/>

Self-administering the injection—this enables the person injecting drugs to have control over the injecting practices, including infection management.

Use of a sterile needle and syringe—this prevents transmission of bloodborne viruses and reduces infection risk. The needle exchange advises clients not to share injecting equipment between people, but to also not reuse equipment. This is because if a needle tip becomes damaged through reuse, it can cause damage to the vein.

Swabbing the site with alcohol beforehand—this is to prevent any microbes on the skin from

being pushed into the injection site and, thus, causing infection.

Washing hands beforehand—as the equipment being used should be sterile, this practice maintains hygiene and is intended to reduce infection risk.

Use of a filter—filtering is intended to remove impurities from drugs prior to injecting. This includes bacteria that can cause infection, as well as binding agents or impurities like talcum powder that can damage veins. Using a filter is always recommended, but different types of filters are recommended for different types of drugs. The NZNEP provides resources to clients to support them to use the most appropriate filter.

Mixing with sterile water—some drugs need to be mixed with water in order to be injected. It is always recommended that sterile water be used for mixing, to reduce the risk of microbes that could cause infection being introduced.

Tourniquet use—using a tourniquet helps plump up the vein so that it is more likely that the injection will go into a vein on the first try and reduce “vein missing”. This is recommended in order to minimise damage to veins that may occur through repeated injecting, and thus lead to people then progressing to higher-risk injecting sites (like the groin).

Use of a wheel filter—wheel filters are a low micron filter that remove bacteria in order to prevent infection. Some drugs require pre-filtering to remove larger contaminants before use of a wheel filter.

Appendix 2: Definitions of IRID severity

Severe IRIDs were defined as those with the potential to be life-threatening and where any delay to medical care has the potential to alter patient outcomes.

We acknowledge that not all IRIDs may warrant medical attention; therefore, we attempted a three-level classification of IRIDs to then enable cross-tabulation with seeking medical attention.

We maintained the current “severe” categorisation and then split “non-severe” into mild (scarring/bruising, vein difficulties, other) and moderate (swelling, infection more than a week).

This would have enabled us to consider whether medical care was sought in a way that could have excluded the “mild” group. However, when classified this way, the numbers were:

Severe = 25 clients

Moderate = 5 clients

Mild = 27 clients

The group of 5 (“moderate”) was too small to meaningfully analyse seeking medical care, and our results were very similar to our original Table 3 for the “mild” group.

When replicating Table 3 with this three-level classification of severity, the results were:

Medical attention	Only mild IRID experience (n=27)	Had experienced a moderate IRID (n=5)	Had experienced a severe IRID n=25	Total n=57
Never sought	23 (85%)	5 (100%)	8 (32%)	36 (63%)
Sought for some	4 (15%)	0	14 (56%)	18 (32%)
Sought for all	0	0	3 (12%)	3 (5%)