Safe Work Practice: Urine Dipstick Analysis in Medical Clinics

Purpose

To establish a standardized procedure for testing urine samples in the clinic.

Scope

This procedure applies to staff who receive, prepare, and/or test urine samples.

Hazards

- **Infection:** Harmful bacteria and pathogens may be present in urine. Exposure can occur through accidental splashes into the eyes, mouth, or nose, or introduction to the bloodstream through an exposed wound. These exposures may lead to infection.
- **Hazardous Drug Exposure:** Urine may contain residual amounts of medications used by the patient. These substances are usually undetectable in dipstick urinalysis and may not have a safe occupational exposure limit assigned. Though rare, it is possible for exposure to lead to adverse effects (for more information, see NIOSH 2004-165).
- **Irritation and Sensitivity:** The acidity of urine may cause irritation to the eyes and/or skin if contact occurs. Likewise, repeated inhalation of urine vapours may cause respiratory irritation. Some people may also develop sensitivities (e.g. allergic reactions) if exposures continue to occur.

Safe Work Practices

General Precautions

- Wear gloves when handling samples, including storage bags, testing samples, cleaning spills, and disposing of waste urine.
    - Wear face protection (e.g. goggles and/or a mask) when performing tasks with a high risk of spills or splash backs, or when there are many samples to test.
    - Wear a fluid-resistant gown and face protection when handling samples that a physician has indicated may contain hazardous drugs (e.g. the patient has taken hazardous drugs within the past 48 to 72 hours).
    - Do not accept samples that are heavily and visibly contaminated with blood.
- Avoid touching your face while handling urine samples. Keep long hair tied back and loose sleeves secured (e.g. by using rubber bands at the cuffs, sleeve covers, or tucking the sleeves into the disposable gloves).
- Keep sample jars closed until they are about to be tested.
- Clean and decontaminate work surfaces that have been touched by urine present on the outside of a sample container.
- Remove gloves after handling samples and put them in the garbage. Follow handwashing procedures or use an alcohol-based hand sanitizer.

Testing

- Ensure the workspace has enough space to move around freely with no tripping hazards.
- Ensure counters are clear.
- Open the sample container on a flat surface. Support the container with one hand and use the other hand to dip the test strip into the sample.
- If a biological safety cabinet (i.e. fume hood) is available, perform urine dipstick testing inside it with the sash lowered to protect from splashes and vapours.
- Avoid rushing, as this may cause spills or splashes.
- Avoid directly inhaling urine vapours.
- Ensure all containers used for testing are labelled with their contents, including sample identification information.
- Recap any containers immediately after use and follow handwashing/decontamination procedures once testing is completed.

Decanting

Where possible, perform the test in the original container. If decanting is required:

- Place the new testing container flat on the work surface and crouch to be at eye level with the container. If the testing container is too small or unstable on the work surface, raise it in one hand to eye level. Hold the sample in the other hand.
- Place the rim of the sample jar at a 45-degree angle against the testing container.
- Pour slowly to reduce the risk of overfilling, spills, and splashes.
- Replace the cap on the sample jar once finished, even if it is now empty. Cap the testing container if the sample will not be tested immediately.

Disposal

- Dispose of urine samples promptly after testing.
- Follow waste management guidelines to dispose of samples after testing.
    - When dumping samples into a drain, ensure:
        - The drain is not part of a “clean sink”.
        - The method of dumping minimizes the risk of spills, splash backs, and inhalation of aerosolized particles.
        - The emptied sample container is disposed of in the garbage.
    - <u>If the sample is known to contain hazardous drugs, infectious material, or blood, discard the sealed sample container and any contaminated personal protective equipment (PPE) into a properly labelled hazardous waste bin. Do not dump the contents.</u>
- Use a cart when it is necessary to move many sample containers to a separate storage or testing area. Avoid carrying the containers manually. Choose the most direct path that also limits the time spent in patient care areas and clean zones.

Spills

- Post instructions for spill cleanup near the urine testing area.
- If the spill is on the floor and it cannot be cleaned up right away, place notices or warnings around the spill to keep people out of the contaminated area.
- Use absorbent materials (e.g. paper towel) to soak up the spill. If the spill is spreading, place additional absorbent materials around the edge of the spill to contain it.
- Dispose of all soiled materials in the garbage.
- Clean and disinfect the area after the spill has been cleared.

First Aid Treatment

Workers who become ill or injured while handling or testing urine samples must report the illness/injury to their employer and seek first aid. The worker should follow the clinic's established first aid reporting procedures to ensure proper documentation is kept.

- If urine enters the eyes, flush the eyes for 15 minutes using an eye wash station.
- If ingested, contact Poison Control (1-844-POISONX).
- If skin contact occurs, wash the area with soap and water.

Training

Managers must ensure that employees who are exposed to urine samples or who conduct urine testing read and understand this document before being exposed to urine samples in the clinic.

Annual Review

This policy and procedure will be reviewed and updated by the employer yearly, or as needed.

References

- SWITCH BC – Exposure Control Plan for Biological Hazards.
- WorkSafeBC – Handwashing Reference Poster.
- WorkSafeBC – Occupational Health and Safety Regulations – Biological Hazards.
- College of Physicians and Surgeons of BC – Waste Management Standards.

Approval

Employer/Manager:	Date: