

PMT3-E-5 — STANDARD OPERATING PROCEDURE – PMT3 STUDY 24 HR URINE COLLECTION

Objectives:

- LC-MS/MS diagnostic measurements of urine fractionated free or deconjugated metanephrines (with catecholamines) and/or deconjugated metanephrines for PMT3 study.

Equipment:

- 2-3 brown plastic containers with at least 2-liter capacity and without preservative (e.g. no HCL).

Method and Patient instructions:

- A full verbal explanation should be provided to each patient along with a written information sheet repeating the same details. This sheet should have a contact name and phone number included, allowing the patient to call and ask any questions or clear up any misunderstandings. The details of where to return the collections must also be included.
- Ensure that the patient understands that one missed sample will invalidate the results for that collection.
- On the day of the urine collection, the patient should not engage in any sport activities or exceptional exercise.
- Ideally the patient should choose a 24-hour period when he/she will be at home so as to minimize transporting the urine boxes from location to location.
- Ask the patient for the best day to collect 24-hour urine.
- Instruct the patient how to collect the urine. The urine must be collected into one or more 24-hour urine containers.
- The patient must begin the 24-hour urine collection after the first morning urine has been passed and discarded as usual via a toilet. Thereafter all urine must be collected into the container(s) with the last sample collected as the first morning urine of the next day (i.e. upon arising from bed 24 hr later).
- The patient must bring the urine containers to the PMT3 study centre within 12 hours after the last urine was collected (*For example, the patient may collect the urine on a Sunday -rest-day- if the evaluation of the lab results is scheduled for the following Monday, he/she can bring the urine back within 12 hours*).

Laboratory Handling:

- To minimize degradation of catecholamines urine should be kept cold on arrival in the laboratory (e.g., cold room, ice).
- The total volume of urine collection must be measured accurately using a measuring cylinder (not from the values on the side of urine containers).
- When collections involve two or more urine containers the urine from each container should be mixed.
- Suitably sized aliquots of the mixed urine are then transferred into storage tubes as stipulated according to PMT3 SOPs and Study Sample Collection Sheet.
- 24-hour tubes should be appropriately labeled and a record noted of the total urine volume, which should also be included on labels.
- Samples should be kept at -80 °C for long-term storage.