Buccal Swab Specimen Collection for Pharmacogenomic Testing

Pertains to: WCL/PGx

Background: The preferred specimen for Pharmacogenomic testing is two properly collected buccal swabs.

Procedure: Two flocked nylon or Dacron swabs are preferred but any nylon or Dacron swab will suffice. Cotton swabs and swabs with wooden shafts should not be submitted as they contain oils that can interfere with PCR reactions.

1. Rinse mouth for 10 seconds with water then wait 5 minutes before collection.
2. Fill out requisition.
3. Remove swab from plastic tube (do not discard tube).
4. Place in mouth and swab the inside of each cheek thoroughly and vigorously for 30 seconds (60 seconds total).
   a. Be sure to swab the entire area of the cheek.
   b. Apply enough pressure to collect a good number of cells but not so much that it is painful.
5. Place swab back into the plastic tube and write name, date of birth and date collected on the tube. Apply bar-coded label if available.
6. Repeat with second swab (no repeat rinsing necessary if done sequentially).
7. Transport to the lab at ambient temperatures or in a cooler.
8. Store swabs at 2-8°C for up to one week or at -20°C to -80°C for up to 3 weeks.

Specimen Rejection Criteria:

Specimens will be accepted/rejected during accession based on laboratory procedures. Samples that are obviously contaminated with food must be recollected.

Samples shall be quantified upon extraction on the Nanodrop spectrophotometer. Samples with DNA template concentration greater than 3 ng/µL are considered acceptable in keeping with the conclusions of the LOD/Dilution study. Any extracted DNA samples below a concentration of 3 ng/µL will be rejected for analysis and re-processed as necessary. Samples above 50 ng/uL of DNA will be diluted. To mitigate any threat to data accuracy due to concentration, all samples with concentrations below 5 ng/µL of DNA will be run in duplicate.