

PROCEDURE

Corewell Health East - Intraoperative Parathyroid Hormone (PTH) for the Operating Room - Troy

This Procedure is Applicable to the following Corewell Health sites:

Corewell Health Beaumont Troy Hospital

Applicability Limited to:	N/A
Reference #:	34364
Version #:	2
Effective Date:	10/23/2025
Functional Area:	Clinical Operations, Laboratory
Lab Department Area:	Lab - Chemistry

1. Purpose

A significant difficulty with parathyroid surgery is the possibility of incorrectly removing one gland or failing to remove multiple hyperfunctioning glands. With this procedure, a baseline PTH level is drawn prior to surgery. If the PTH does not decrease by 50% after a gland is removed, further exploration and possible additional intra-operative PTH assays may be requested. In most cases intra-operative PTH testing will save surgical time and minimize the need for follow-up surgery.

2. Responsibility

Personnel who have completed the competency requirements will perform this testing.

3. Specimen

EDTA (purple top tube) is the ONLY acceptable specimen.

4. Procedure

- A. By agreement with surgical services, this type of surgery should only be performed on the day shift. Surgeons or surgical staff need to notify the chemistry laboratory TWO DAYS PRIOR to the surgery date by calling the Chemistry laboratory at extension 248-96-48070. This will allow the technologists adequate time to make certain our instrumentation and the two Abbott Architect analyzers are properly calibrated and to run quality control materials to assure accurate results for this assay. Both Architects are calibrated in case one of the analyzers is inoperable the day of surgery.
- B. The day of surgery, Chemistry staff will alert clerks in the Specimen Reception processing area that a parathyroid surgery is scheduled and to expect multiple PTH specimens drawn in purple top tubes. The baseline PTH will be sent by pneumatic tube and delivered to Chemistry STAT. If PTH specimens drawn in the operating room (OR) are dropped off in Specimen Reception, clerks are to deliver them STAT into the hands of a Chemistry medical technologist.
- C. Surgical staff place the order for each INTRA-OPERATIVE PTH test in Epic and generate a barcode label.
- D. An EDTA (purple top) tube is the ONLY acceptable specimen.
- E. A baseline PTH sample will be drawn just before the surgery and immediately transported to the lab, via the pneumatic tube system.

Entities will reference associated Documentation contained within this document as applicable
Printouts of this document may be out of date and should be considered uncontrolled.

- F. During the procedure a second specimen is drawn 10 minutes after removal of the suspected abnormal (adenoma/hyperplasia) parathyroid gland. This specimen is to be placed in a specimen bag with a protocol label attached. "PTH-OR, Deliver to Chemistry STAT, Call OR ext." The OR will write the extension to be called on this label.
- G. OR staff is to call the Chemistry lab at 248-96-48070 to alert them that a PTH-OR specimen is coming. OR staff member is to hand-deliver the specimen bag to the Chemistry lab.
- H. Chemistry staff will, if necessary, collect the specimen in the laboratory information system (LIS) and receive the specimen via LIS. The tube will be spun in the STAT centrifuge for three minutes. A timer will be set for three minutes to alert the technologist when the specimen may be removed from the centrifuge and is ready for analysis. These samples will be directly placed on the analyzer and the technologist will observe that the sample has been aspirated and testing has started. A timer will be set for 18 minutes to alert the technologist that testing is completed.
- I. Baseline results will be entered in the LIS as soon as they are available. Intra-operative specimen results MUST be called to the specific operating room phone number written on the Biohazard bag and also reported in the LIS. If the baseline result is >2500 pg/ml, immediately manually dilute the sample and program the manual dilution in the Architect. Call the pre-OP area and notify them of the preliminary result and that a definitive result will follow. ALL intra-operative PTH specimens from patients with baseline results >2500 should be ordered on the Architect to assay the sample undiluted and by a X5 manual dilution. This will avoid any unnecessary delays in reporting results.
- J. If the PTH level has not dropped more than 50% from the baseline, subsequent samples may be collected after additional surgery. Follow step F for each additional Intra-operative PTH specimens.

5. Revisions

Corewell Health reserves the right to alter, amend, modify or eliminate this document at any time without prior written notice.

6. Procedure Development and Approval

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7. Keywords

Not Set