Appendix 1: BC Laboratory Algorithm for Thyroid Tests

For a clinical algorithm, see guideline Figure 1: Clinical Algorithm for Thyroid Function Tests for Diagnosis and Monitoring in Symptomatic Non-Pregnant Patients. Upper limit of normal = ULN.

*Specific Clinical Indications
- Suspicion of pituitary insufficiency
- Patient age < 1 year at time of sample collection
- Previous TSH inconsistent with patient presentation†
- Query analytical interference† Requires consultation with laboratory physician

- TSH ordered with fT4 and/or fT3
- fT4 and fT3 ordered without other thyroid test

No
Cancel fT4 and fT3

Does a specific clinical indication apply?*

Yes
Measure fT4

Normal
Report TSH, fT4 and fT3

Abnormal
Report TSH and fT4

≥10 mU/L
Measure fT4

Normal
Report TSH, fT4 and fT3

Abnormal
Cancel fT4 if ordered
Report TSH and fT4

ULN-10 mU/L
Measure fT4

Normal
Report TSH, fT4 and fT3

Abnormal
Cancel fT3 if ordered
Report TSH and fT4

Does a specific clinical indication apply?*

Yes
Measure fT3

Normal
Report TSH, fT4 and fT3

Abnormal
Cancel fT3 if ordered
Report TSH and fT4

No
Cancel fT4 and/or fT3
Report TSH

Low
Measure fT4

Normal
Measure fT3

Normal
Report TSH, fT4 and fT3

Abnormal
Cancel fT3 if ordered
Report TSH and fT4

Cancel fT3 if ordered
Report fT4

High
Measure fT3

Normal
Report TSH, fT4 and fT3

Abnormal
Cancel fT3 if ordered
Report TSH and fT4

Cancel fT3 if ordered
Report fT4

Measure fT4

Normal
Report TSH, fT4 and fT3

Abnormal
Cancel fT3 if ordered
Report TSH and fT4

Cancel fT3 if ordered
Report fT4

BCGuidelines.ca: Thyroid Function Testing in the Diagnosis and Monitoring of Thyroid Function Disorder: Appendix 1: BC Laboratory Algorithm for Thyroid Tests (2018)