

DATE:	2022 June 27
TO:	All Edmonton Zone and North Zone Clinicians
FROM:	APL and Dynalife
RE:	Change in PTT normal reference range for all sites in Edmonton and North Zone

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message

- The normal reference range for the “Partial Thromboplastin Time (PTT)” test within Epic is changing:
 - From: **24-39 sec**
 - To: **26-38 sec**
 - Effective: **June 28, 2022**
- There is, and will continue to be, only one normal reference range for the “Partial Thromboplastin Time (PTT)” within Epic for the province.
- This will affect all laboratories in the Edmonton and North Zones. It includes Dynalife managed laboratories, and sites not yet completely transitioned to Epic (eg. GNH and MIS).

Action Required

- See Appendix “A” for how reference range changes will appear to clinicians in Epic.
- If you have patients who are monitoring their PTT results in the MyChart and/or MyHealth Records patient portals (see Appendix “B”), please inform them that:
 - Reference range changes may not always be clear when trending over time.
 - They should always refer to the reference ranges provided with individual test results.

Questions/Concerns

- Dr. Artur Szkotak, North Sector Hematopathology Section Chief, APL, artur.szkotak@aplabs.ca

Approved by

- Dr. Susan Nahirniak, North Sector Associate Medical Director, Alberta Precision Laboratories (APL)
- Dr. Stuart Brown, Dynalife Medical Labs



Appendix A – Reference Range appearance in Epic clinician portal

In the “Result Review” tree (and in some other views):

- The new reference range will be listed after Go Live.
- Reference ranges associated with previous results can be viewed by hovering the mouse over each.

Example new reference range:

Ref. Range and Units	09/06/2022 1046	12/07/2021 1129	27/06/2021 2044	14/06/2021 1250	14/06/2021 0924
PTT					
PTT Mixing Study P... Latest Range: 26 - 38 Seconds	39 [*]	33 [*]	33 [*]	33 [*]	33 [*]

39 Ref: 26 - 38 Seconds Lab: RED RDHC LAB

Example old reference range:

Ref. Range and Units	09/06/2022 1046	12/07/2021 1129	27/06/2021 2044	14/06/2021 1250	14/06/2021 0924
PTT					
PTT Mixing Study P... Latest Range: 26 - 38 Seconds	39 [*]	33 [*]	33 [*]	33 [*]	33 [*]

33 Ref: 24 - 39 Seconds Lab: DID DDHS LAB

In “Chart Review”:

- Any result obtained when the reference range was different from that listed under the test name, will have an associated superscript “R”.
- Note that if a PTT is selected before the reference range change, such that the old reference range is still shown under the test name, there is no superscript “R” applied.

Example if a result obtained **after** the reference range change is selected in Chart Review. In the example the PTT from 9/6/22 was selected, which was obtained after the reference range change:

Partial Thromboplastin Time (PTT) -- Blood Order: 2762987

Status: Final result
Visible to patient: No (scheduled for 9/6/2022 10:46 AM)

0 Result Notes

Component	10:46	11 mo ago	11 mo ago	12 mo ago	12 mo ago (14/6/21)
Ref Range & Units	(9/6/22)	(12/7/21)	(27/6/21)	(14/6/21)	
aPTT	39 ^R	33 ^{R, CM}	33 ^{R, CM}	33 ^{R, CM}	33 ^{R, CM}

26 - 38 Seconds

Comment: For Heparin Protocol Maintenance.
Infusion Nomogram reference: VERY LOW PTT

Resulting Agency	RED RDHC LAB	DID DDHS LAB	DID DDHS LAB	DID DDHS LAB	DID DDHS LAB
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Specimen Collected: 09/06/22 10:46 Last Resulted: 09/06/22 10:46

[Lab Flowsheet](#) [Order Details](#) [View Encounter](#)
[Lab and Collection Details](#) [Routing](#) [Result History](#)

CM=Additional comments R=Reference range differs from displayed range



Example if a result obtained before the reference range change is selected in Chart Review. In the example the PTT from 12/7/21 was selected, which was obtained before the reference range change:

Partial Thromboplastin Time (PTT) -- Blood, Venous Order: 2334534

Status: Final result Visible to patient: No (not released)
Next appt: None

0 Result Notes

ⓘ Newer results are available. Click to view them now.

Component	12/7/21	27/6/21	14/6/21	14/6/21
Ref Range & Units	1129	2044	1250	0924
<input checked="" type="checkbox"/> aPTT	33	33 ^{CM}	33 ^{CM}	33 ^{CM}
24 - 39 Se-conds				

Comment: For Heparin Protocol Maintenance.
Infusion Nomogram reference: VERY LOW PTT






Appendix B - Reference Range appearance in Patient Portals

MyChart example of trended PTT results obtained before (23/5/19 & 4/10/21) and after (16/6/22) the PTT reference range change. Note that the view incorrectly implies that the new reference range of 26-38 sec applies to all current and past results:

Partial Thromboplastin Time (PTT) - Past Results  [About this test](#)

If there is **incorrect** or **missing** information, please have a discussion with the healthcare provider responsible for the information.

Details **Past Results** Graph of Past Results

From: 23/5/19  To: 14/6/22  - or - Latest values: 10  [View dates as rows](#)

Name	23/5/19	4/10/21	14/6/22
Standard Range			
PTT Mixing Study Patient's Current PTT 26 - 38 Seconds	44 H	55 H	35

MyChart example of individual PTT results obtained before the reference range change (23/05/2019). These individual PTT results always show the correct (old in this case) reference range information:

Partial Thromboplastin Time (PTT) - Details  [About this test](#)

If there is **incorrect** or **missing** information, please have a discussion with the healthcare provider responsible for the information.

Details **Past Results** Graph of Past Results

Component Results

Component	Your Value	Standard Range	Flag
aPTT	44 Seconds	24 - 39 Seconds	H


General Information

Ordered by Physician Allergy
 Collected on 23/05/2019 10:27 AM from Blood, Venous (Blood)
 Resulted on 23/05/2019 10:29 AM
 Result Status: Final result



MyChart example of individual PTT results obtained after the reference range change (14/06/2022). These individual PTT results always show the correct (new in this case) reference range information:

Partial Thromboplastin Time (PTT) - Details

 About this test

If there is **incorrect** or **missing** information, please have a discussion with the healthcare provider responsible for the information.

Details **Past Results** Graph of Past Results

Component Results

Component	Your Value	Standard Range	Flag
aPTT For Heparin Protocol Maintenance. Infusion Nomogram reference: VERY LOW PTT	35 Seconds	26 - 38 Seconds	

General Information

Ordered by Dr. Feelgood
Collected on 14/06/2022 9:27 AM from Blood (Blood)
Resulted on 14/06/2022 9:28 AM
Result Status: Final result

Note: MyHealth Records examples are not provided but follow the same general trend of reliably showing reference range information when looking at individual test results. However, they don't show how reference ranges change over time when looking at multiple results, whether in tabular or graphed form.