Urgent Field Safety Notice
SBN-RDS-CoreLab-2021-003

Roche

RDS/Core Lab /Clin.Chem.

Version1

April 2021

Iron Gen.2: throughput dependent signal drifts on cobas c 311, cobas c 501/502 and COBAS INTEGRA® 400 plus

Product Name	Iron Gen.2 (IRON2)
System	**cobas c** 311 **cobas c** 501 **cobas c** 502 COBAS INTEGRA® 400 plus analyzer
GMMI / Part No **Device Identifier**	Iron Gen.2 (IRON2) 03183696122
Production Identifier **(Product name/Product code)**	Lot independent
SW Version	n/a
Type of Action	Field Safety Corrective Action

Dear Valued Customer,

Description of Situation

Several customer complaints were received regarding the increased recovery of controls and discrepant elevated results for the IRON2 on **cobas c** 311/501/502 and on COBAS INTEGRA 400 plus (**cobas c** pack).

No allegation of an adverse event has been made.

Internal investigations confirmed the issue and revealed a systematic sample drift up to +4.7 µmol/L absolute for IRON2 over the entire measuring range. The bias increases with the number of tests performed from one **cobas c** pack without further calibration. The first measurements are not affected while the last sample can exhibit the maximal observed bias.

The magnitude of the effect depends on multiple factors of the laboratory's routine (time, analyzer throughput, IRON2 throughput, calibration intervals). The effect is not linked to the on board time.

Optimal hardware and maintenance status of the module can reduce the risk of the occurrence of the issue. Optimizing piercer, reagent probe, reagent rotor adjustment as well as outside wash adjustment and gear pump pressure adjustment also mitigate the issue. Iron abraded from the reagent probes caused by the screw caps of other **cobas c** packs used in parallel to IRON2 leads to iron contamination of the IRON2 reagents resulting in a positive bias.

Iron Gen.2: throughput dependent signal drifts on cobas c 311, cobas c 501/502 and COBAS INTEGRA® 400 plus

Only IRON2 in the **cobas c** pack is affected.

cobas c pack large (used for **cobas c** 701/702, uncapped) and **cobas c** pack green (**cobas c** 303/503, different cap materials) are not affected.

cobas c 111 (uncapped) is not affected.

Due to the residual medical risk related to the issue, customers must be informed via FSN-RDS-CoreLab-2021-003.

Actions to be taken by Roche Diagnostics
Immediate workarounds for the customers have been defined. Final solutions are currently under evaluation. Updates will be provided, as more information is available throughout the investigation.

Actions to be taken by the customer/user

The customers are advised to implement the following workarounds depending on their throughput on the respective analyzer:

- Run batch measurements for IRON2 (this workaround is applicable regardless of number on the test determinations per day)

  or

- It is recommended to run a blank calibration with the zero standard using deionized water on the **cobas c** 311/501/502 analyzers or perform a full calibration on COBAS INTEGRA® 400 plus after at least every 50 IRON2 determinations out of one **cobas c** pack. Several workaround possibilities are described below separated by
  - Customers running < 50 IRON2 determinations per day out of one **cobas c** pack
  - Customers running ≥ 50 IRON2 determinations per day out of one **cobas c** pack

For technical details with respect to different analyzers, please refer to the instructions attached to the FSN-RDS-CoreLab-2021-003.

Communication of this Field Safety Notice (if appropriate)

This notice must be passed on to all those who need to be aware within your organization where the devices have been distributed/supplied (if appropriate).

Please transfer this notice to other organizations/individuals on which this action has an impact.

Please maintain awareness of this notice and resulting action for an appropriate period to ensure the effectiveness of the corrective action.

Iron Gen.2: throughput dependent signal drifts on cobas c 311, cobas c 501/502 and COBAS INTEGRA® 400 plus

The following statement is mandatory in FSNs for EEA countries but is not required for the rest of the World:

Include if applicable: The undersigned confirms that this notice has been notified to the appropriate Regulatory Agency.

We apologize for any inconvenience this may cause and hope for your understanding and your support.

<closing salutations>,

Contact Details

To be completed locally:

Name

Title

Company Name

Address

Tel. +xx-xxx-xxxx xxxx

Email name@roche.com

Attachment 1:

Installation instruction for the workaround

It is recommended to run a blank calibration with the zero standard using deionized water on the **cobas c** 311/501/502 analyzers or perform a full calibration on COBAS INTEGRA® 400plus after at least every 50 IRON2 determinations out of one **cobas c** pack. Several workaround possibilities are described below separated by

- o **Customers running < 50 IRON2 determinations per day out of one cobas c pack**
- o **Customers running ≥ 50 IRON2 determinations per day out of one cobas c pack**

The specified workarounds, which are applicable depending on the device, can be installed with a time interval by the customer itself as described below <u>except for</u> the calibration on the COBAS Integra® 400 plus. However, the customers should be aware that the calibration is not carried out automatically by the device. Rather the customer should perform the calibration when the message occurs. This is already the case with the usual calibrations.

In addition, an optimal hardware and maintenance status of the module might reduce the risk of the occurrence of the issue. The following steps can also be recommended as mitigating measures depending on the device: optimizing piercer, reagent probe, reagent rotor adjustment as well as outside wash adjustment and gear pump pressure adjustment also mitigates the issue..

1. Customers running < 50 IRON2 determinations per day out of one cobas c pack

1.1. **cobas c** 311/501/502
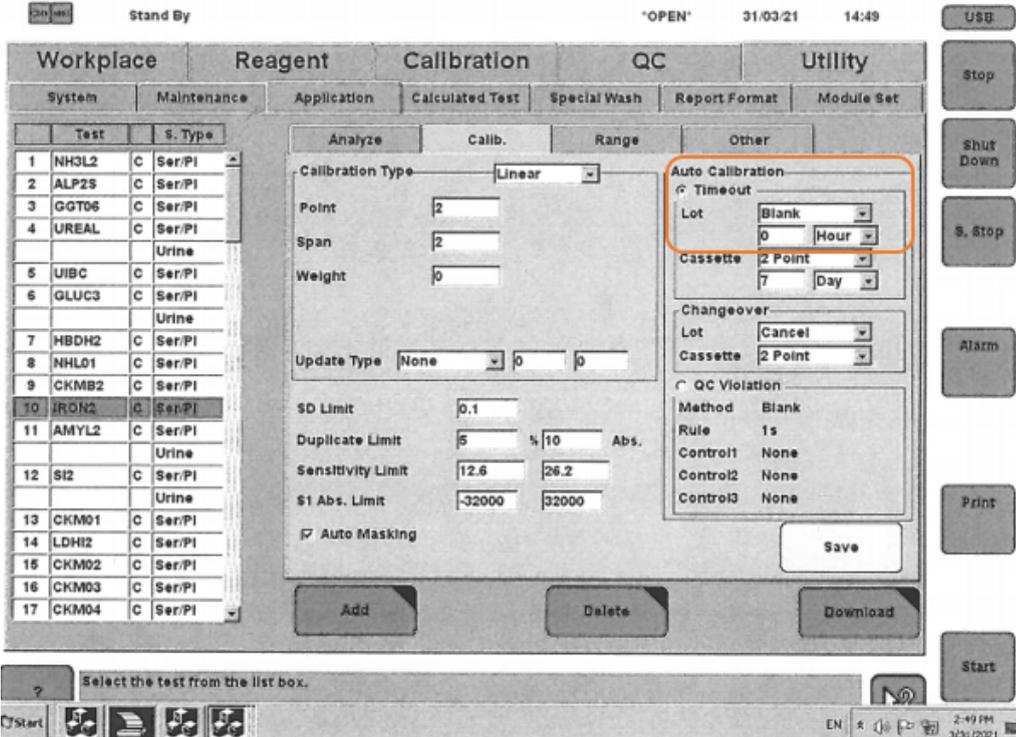
Modules running < 50 IRON2 determinations per day out of one **cobas c** pack need to perform a blank calibration with the zero calibrator using deionized water, which can be set on the analyzer by changing the lot calibration "Timeout" to "blank" and a "timeout" to "1 day" as follows:

1.1.1. **cobas c** 311/501:

Please select on the analyzer:

Utility >> Application >> Calib. >> Auto Calibration >> Lot Blank 1 Day >> Save

Please see also the Operators Manual Version 8.2 with the Software Version 06-03 on page B-270 for **cobas c** 501 and the Practical Guide Version 1.1 for **cobas c** 311 on page 123.
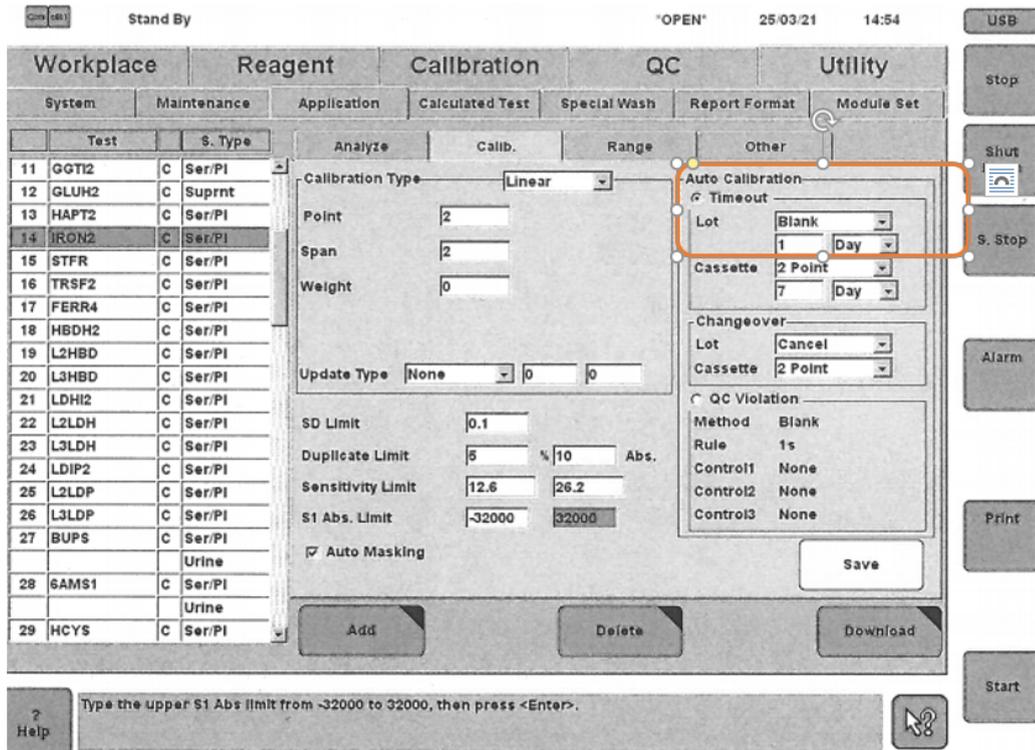
1.1.2. **cobas c** 502:

Please select on the analyzer:

Utility >> Application >> Calib. >> Preference Calibration Settings >> Lot Blank 1 Day >> Save

Please see also the Complete User Documentation Version 5.4 on page 721 following.
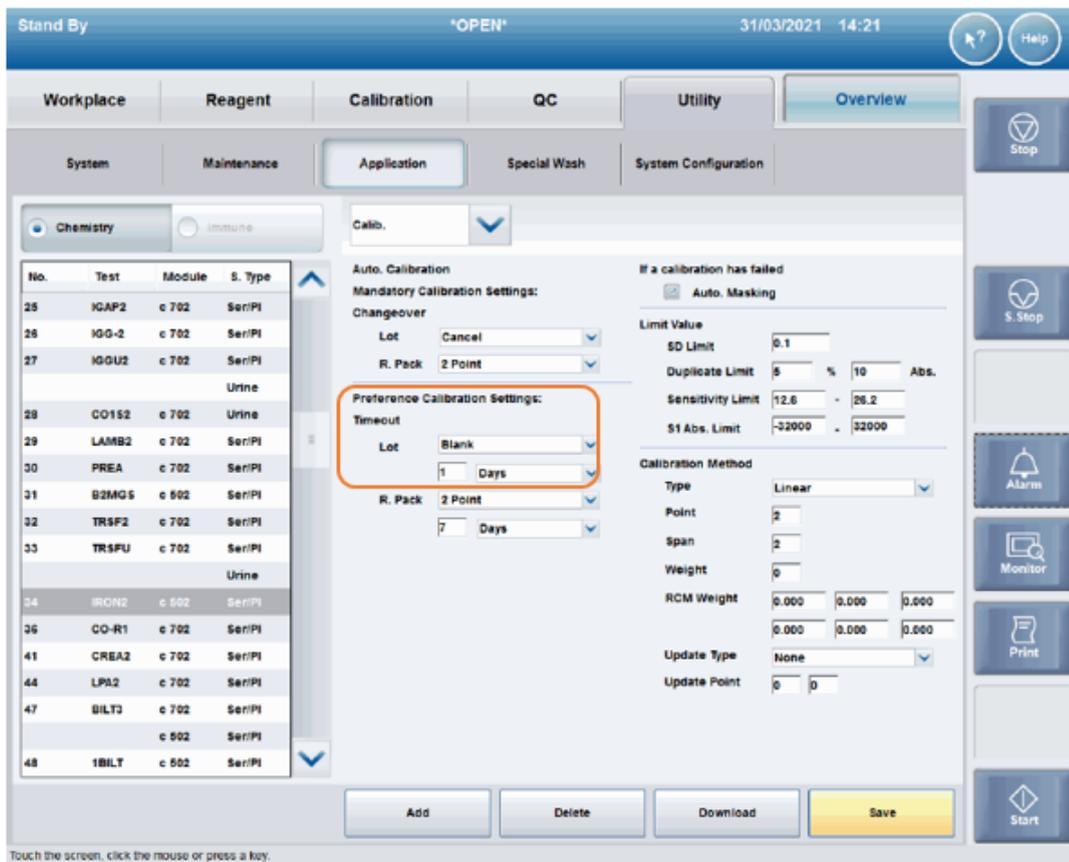
1.1.3. COBAS INTEGRA® 400 plus analyzer

COBAS Integra® 400 plus modules running < 50 IRON2 determinations per day need to perform a full calibration with timeout "1 day".

Please select on the analyzer:

Configuration >> Double click Tests in the Definition group >> Select the required test from the installed tests list>> Select the chapter "General" >> Select calibration >> Select Main interval >> Choose C assette & Interval >> Enter "1" in the corresponding text box "Days" to define the period to repeatedly define the calibration

For more details, please see the User Manual Version 3.2 for COBAS INTEGRA® 400plus on page G-20.
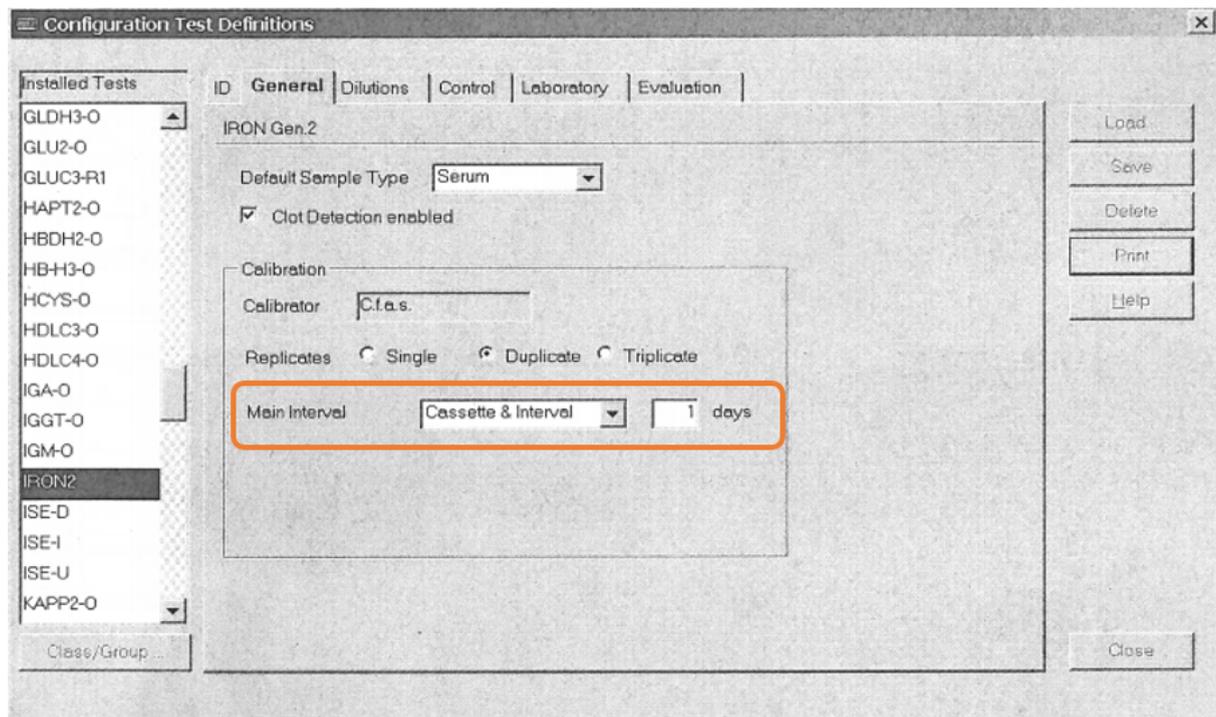
2. **Customers running ≥ 50 IRON2 determinations per day out of one cobas c pack**

2.1. **cobas c** 311/501/502

Modules running ≥ 50 IRON2 determinations per day need to

o   Perform a blank calibration manually at least after every 50 IRON2 determinations with the zero calibrator using deionized water <u>OR</u>
o   Adjust the timeout calibration according to the lab specific estimation of IRON2 determinations depending on the throughput in the laboratory e.g. to 1 hour, 2 hours, etc.

2.1.1. **cobas c** 311/501:

Please select on the analyzer:
Application >> Calib. >> Auto Calibration >> Lot Blank "xx" hours >> Save

Please see also the Operators Manual Version 8.2 with the Software Version 06-03 on page B-270 for **cobas c** 501 and the Practical Guide Version 1.1 for **cobas c** 311 on page 123.
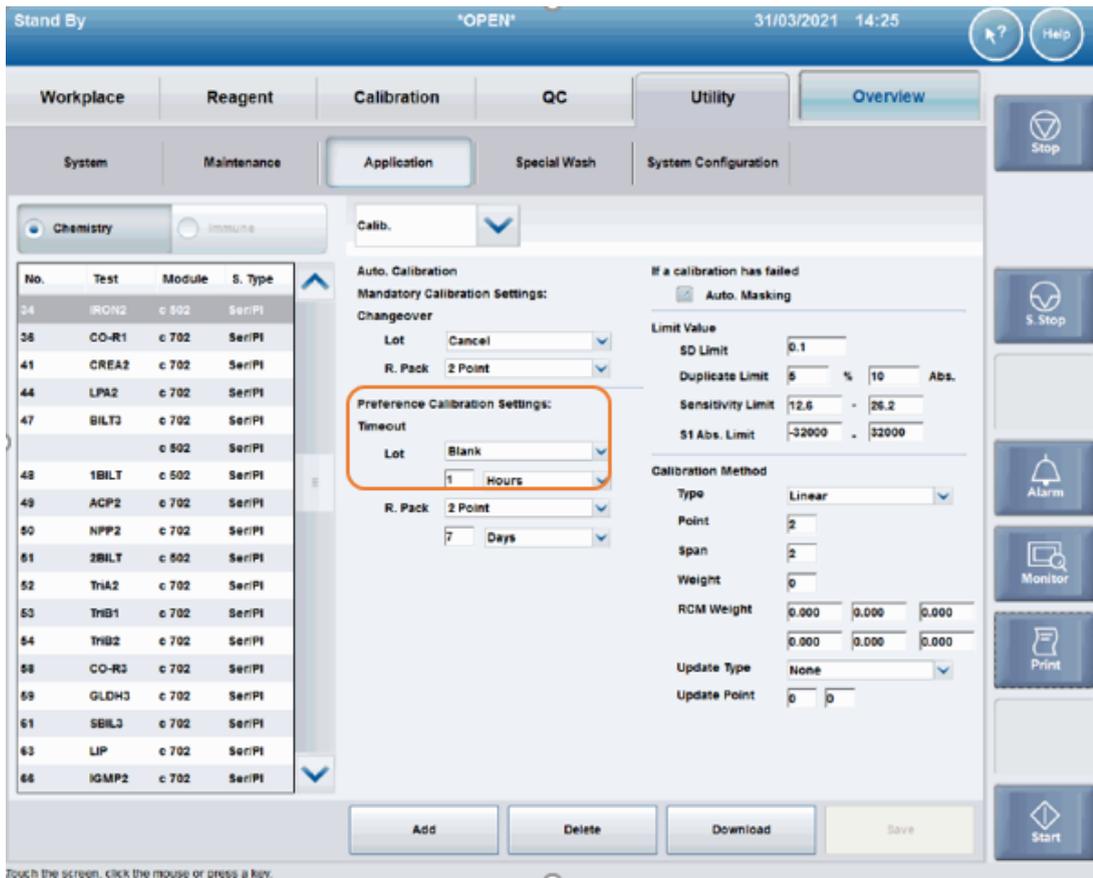
Please be aware:

The specification of the time interval must be defined by the customer according to the individual assessment. It must be ensured that <u>no more than</u> 50 IRON2 determinations per calibration interval are measured within the specified time interval.

2.1.2. cobas c 502:

Please select on the analyzer:

Utility >> Application >> Calib. >> Preference Calibration Settings >> Lot Blank "xx" Hours >> Save

Please see also the Complete User Documentation Version 5.4 on page 721 following "Configuration calibration parameters".

Please be aware:

The specification of the time interval must be defined by the customer according to the individual assessment. It must be ensured that <u>no more than</u> 50 IRON2 determinations per calibration interval are measured within the specified time interval.

2.1.3. COBAS INTEGRA® 400 plus analyzer

COBAS Integra® 400 plus modules running ≥ 50 IRON2 determinations per day need to perform a full calibration manually at least after every 50 determinations.