Sultanate of Oman
Ministry of Health
Directorate General of Pharmaceutical Affairs and Drug Control
Muscat

سلطنة عُمان
وزارة الصحة
المديرية العامة للصيدلة والرقابة الدوائية
مسقط

To:
THE DIRECTOR GENERAL OF HEALTH SERVICES IN ALL GOVERNORATES
Commanding Officer, Armed Forces Hospital (Al Khoudh & Salalah)
Director General of Engineering Affairs, MOH
Director General of Royal Hospital
Director General of Khoula Hospital
Director General of Medical Supplies (MOH)
Director General of Pvt. Health Est. Affairs (to kindly arrange distribution to all Pvt. Hospitals)
Hospital Director (Al Nahda Hospital)
Hospital Director (Al Massara Hospital)
The Head of Medical Services in SQU Hospital
The Head of Medical Services in Royal Oman Police
The Head of Medical Services in Ministry of Defence
The Head of Medical Services in The Diwan
The Head of Medical Services in The Sultan's Special Force
The Head of Medical Services in Internal Security Services
The Head of Medical Services in Petroleum Development of Oman
The Head of Medical Services in LNG Oman
ALL PRIVATE PHARMACIES & DRUG STORES

After Compliments,

Please find attached our Circular No 100 **dated** 24/5/23 **Regarding NCMDR Field Safety Notice of aPTT Screen cobas t 600T, aPTT Lupus cobas t 600T, aPTT cobas t 600T from (mfr: Roche Diagnostics GmbH).**

Copy to:

- **Director, Office of H.E. The Undersecretary for Health Affairs**
- **Director of Medical Device Control, DGPA&DC**
- **Director of Pharmacovigilance & Drug Information Dept, DGPA&DC**
- **Director of Drug Control Department, DGPA&DC**
- **Director of Pharmaceutical Licensing Department, DGPA&DC**
- **Director of Central Quality Control Lab., DGPA&DC**
- **Supdt. of Central Drug Information**

PADC
المديرية العامة للصيدلة والرقابة الدوائية
Directorate General of Pharmaceutical Affairs & Drug Control

ص.ب: ٣٩٣ مسقط - الرمز البريدي: ١٠٠ - هاتف: ٢٢٣٥٧١١١ - فاكس: ٢٢٣٥٨٤٨٩
P.O. Box: 393 Muscat - Postal Code: 100 - Tel: 22357111 - Fax: 22358489
dgpa_dc Email: dg-padc@moh.gov.om

Sultanate of Oman
Ministry of Health
Directorate General of Pharmaceutical Affairs and Drug Control
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سلطنة عُمان
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Circular No. 100 / 2023

04 -11-1444 H

24 -05-2023

FSN of aPTT Screen cobas t 600T, aPTT Lupus cobas t 600T, aPTT cobas t 600T from Roche Diagnostics GmbH.

Source	NCMDR - National Center Medical Device Reporting- SFDA. https://ncmdr.sfda.gov.sa/Secure/CA/CaViewRecall.aspx?caid=4&rid=19514
Product	aPTT Screen cobas t 600T, aPTT Lupus cobas t 600T, aPTT cobas t 600T.
Description	IVD.
Manufacturer	Roche Diagnostics GmbH
Local agent	National Pharmacy.
The affected products	GMMI / Part No; Device Identifier/UDI-DI 07153716190 aPTT Screen cobas t 600T UDI-DI: 07613336119853 07153678190 aPTT Lupus cobas t 600T UDI-DI: 07613336119846 07153589190 aPTT cobas t 600T UDI-DI: 07613336119853
Reason	Carryover from PT Rec and PT Rec-based factor assays (FII, FV, FVII, FX) to aPTT assays (aPTT, aPTT Lupus and aPTT Screen) was detected.
Action	1. Customers are requested to check if the heated reagent probe is tight and to tighten it, as described in the (attachment 1) in the attached FSN. In addition, to detect any residual carryover, which can affect samples with prolonged aPTT Screen clotting times, customers are requested to implement a reflex test and additional wash rules. For details, see attached instructions (attachment 1) in the attached FSN. 2. The method sheet for aPTT Screen will be updated to include information about aPTT Screen Mod. 3. Contact the local agent for remedial action.
comments	Healthcare professionals are encouraged to report any adverse events Suspected to be associated with the above device or any other medical device to Department of Medical Device Control through the E-mail: Med-device@moh.gov.om

Dr. Mohammed Hamdan Al Rubaie

Director General

PADC
Directorate General of Pharmaceutical Affairs & Drug Control
ISO 9001:2015 CERTIFIED

ص.ب: ٣٩٣ مسقط - الرمز البريدي: ١٠٠ - هاتف: ٢٢٣٥٧١١١ - فاكس: ٢٢٣٥٨٤٨٩
P.O. Box: 393 Muscat - Postal Code: 100 - Tel: 22357111 - Fax: 22358489
dgpa_dc Email: dg-padc@moh.gov.om

Urgent Field Safety Notice

SBN- RDS-CoreLab-2023-003

RDS/ CoreLab / Coagulation
Version 1
19 April 2023

Dear Valued Customer,

Please find here attached a Field Safety Notice (FSN) related to FSN-RDS-CoreLab-2023-003:

"FSN-RDS-CoreLab-2023-003 cobas® t 511/ t 711: PT-aPTT carry over "

We kindly ask you to acknowledge receipt of the attached FSN by completing the relevant details and signing where indicated.

Finally, please forward the attached FSN to your customers having purchased and utilizing the related products and collect their required information and signature.

We thank you for your understanding and collaboration and apologize for any inconvenience.

Yours sincerely,

For on behalf of
Roche Diagnostics Saudi Arabia Limited

Turki Bin Juraid
Regulatory Affairs & Quality Assurance Manager

Humayun Sajjad Qazi
Head of Operations & Transormation

FSN-RDS-CoreLab-2023-003 cobas® t 511/ t 711: PT-aPTT carry over

Roche

Dear Valued Customer,

Product Name	aPTT Screen cobas t 600T aPTT Lupus cobas t 600T aPTT cobas t 600T
GMMI / Part No Device Identifier/ UDI-DI	07153716190 aPTT Screen cobas t 600T UDI-DI: 07613336119853 07153678190 aPTT Lupus cobas t 600T UDI-DI: 07613336119846 07153589190 aPTT cobas t 600T UDI-DI: 07613336119853
Production Identifier (Lot No./Serial No.)	n/a
SW Version	n/a
Type of Action	Field Safety Corrective Action (FSCA)

Description of Situation

With this FSN we would like to inform you about a recently identified issue on cobas t 511 and cobas t 711 coagulation analyzers.

During internal measurements, carryover from PT Rec and PT Rec-based factor assays (FII, FV, FVII, FX) to aPTT assays (aPTT, aPTT Lupus and aPTT Screen) was detected.

The carryover takes place over the heated reagent probe that pipettes the start reagent of PT Rec and aPTT assays. If the heated probe is pipetting the affected reagent directly after pipetting PT Rec or with one other pipetting in between, a carryover effect was observed.

The carry over occurs when the coupling-nut is not tightened sufficiently. In this case aPTT Screen, aPTT Lupus and aPTT can be affected by carryover. Residual carry over can occur even if the probe is tightened. In this case, the carryover effect is much smaller and only aPTT Screen is affected for results above 50 sec.

A carryover from the PT Rec reagent to the aPTT assays will speed up the reaction. Thus, the carryover effect will lead to discrepant lower aPTT results, as the clotting time will become shorter. The incorrect low result may impact the interpretation of results and medical decisions based on those.

Two scenarios, which can lead to carryover, were observed:

1. In case that the heated reagent probe is not firmly tightened (affects aPTT, aPTT Lupus and aPTT Screen)
2. In case of samples with prolonged clotting, the carryover effect is possible even if the heated reagent probe is tightened sufficiently as described in the attached instructions (affects aPTT Screen only).

To date, no customer complaints were received.

Due to the associated safety risk, customers must be informed using the FSN-RDS-CoreLab-2023-003.

FSN-RDS-CoreLab-2023-003 cobas® t 511/ t 711: PT-aPTT carry over

Actions taken by Roche Diagnostics

Immediate workarounds are available to address both carryover scenarios:

1. Instructions for the customer how to sufficiently tighten the heated reagent probe. These will be added to the user assistance and maintenance workflows.
2. To mitigate the carryover risk in samples with prolonged clotting times, a reflex rule was set up to repeat the aPTT Screen orders with results above 50 sec. For this, with this FSN, *aPTT Screen Mod* assay will be implemented on **cobas** t 511 and **cobas** t 711 coagulation analyzer
3. Updated method sheet for aPTT Screen will include information regarding *aPTT Screen Mod* and is planned to be available in Q3 2023.

Actions to be taken by customers/users

- Customers are requested to check if the heated reagent probe is tight and to tighten it, as described in the attached instruction (attachment 1).
- In addition, to detect any residual carryover, which can affect samples with prolonged aPTT Screen clotting times, customers are requested to implement a reflex test and additional wash rules. For details, see attached instructions (attachment 1).

Please note, the following documents and e-barcodes are required for the measures to be taken. They will be released upon the publication of this FSN:

- e-Barcode aPTT Screen Mod V1
- e-Barcode Reagent Carryover Evasion (COE) V7
- Method Sheet Clean V7.0
- Method Sheet Deproteinizer V5.0

The method sheet for aPTT Screen will be updated to include information about *aPTT Screen Mod*. This is planned to be available in Q3 2023.

Attachment

- Instructions for tightening the probe and configuring the reflex test (Attachment 1)

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 or to any organization/individual where the potentially affected devices have been distributed/supplied. (If appropriate).

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

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

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

FSN-RDS-CoreLab-2023-003 cobas® t 511/ t 711: PT-aPTT carry over

Local authorized distributor's Details:

Facility Name: Contact Name: Position: Phone: Date: Signature and Stamp:

I have received the FSN and read/understand its content.

Customer Details:

Facility Name: Contact Name: Position: Phone: Date: Signature and Stamp:

Attachment 1 - FSN-RDS-CoreLab-2023-003
Description of mitigation measures for affiliate and/or customer

This attachment describes the mandatory actions that have to be implemented.
The actions can be performed by the customers themselves or, where required, with help of a Roche service representative.

The document structure describes first the measures for Situation 1 and Situation 2 and provides additional information as the last paragraph.

It is recommended that at least the action described for Situation 1 is done immediately by the customers themselves to avoid a potential delay if a Roche service representative shall be involved to perform the measures for Situation 2. This might include a software update for systems with SW 2.1.1 or earlier, if possible in the given timelines.

Situation 1: Principle of measure

The heated reagent probe (1x on **cobas t** 511 analyzer, 2x on **cobas t** 711 analyzer) has to be tightened properly.

⚠ Warning!

▼ **Contact with reagent probes**

Contact with reagent probes may result in injury and infection.
- Avoid touching the end of the reagent probes.
- Avoid contacting the reagent probes during maintenance.
- Wear appropriate personal protective equipment.

  Take extra care when working with lab gloves. They can easily be pierced or cut, leading to infection.

⚠ Warning!

▼ **Hot surfaces**

Risk of personal injury due to touching hot surfaces in the analyzer.
- Use caution near the heated reagent probe. If it is necessary to handle the heated reagent probe, allow time for it to cool down.
- Observe all safety labels on the analyzer.

Notice!

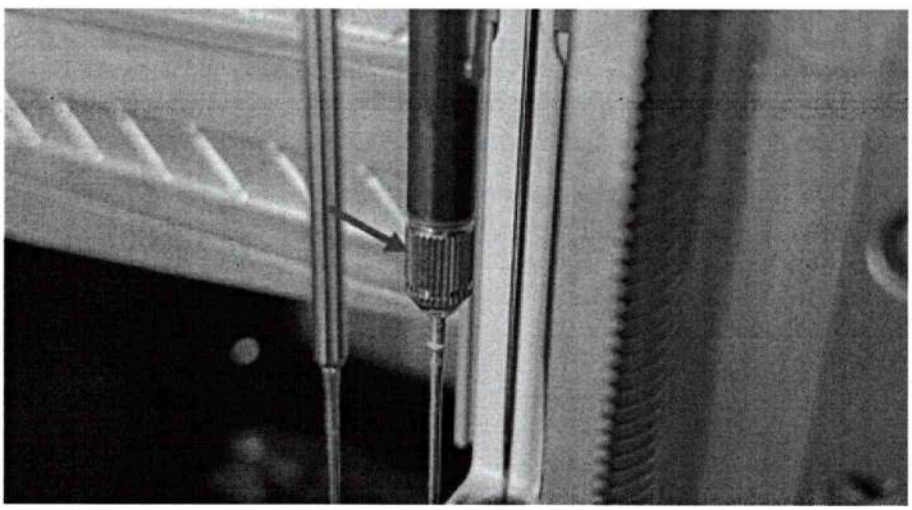
▼ **Mechanical damage**

Moving the reagent transfer head to the furthest left-backwards position can lead to a tube or cable being bent when the main cover is closed.
- Do not move the reagent transfer head to the far left, backward position.

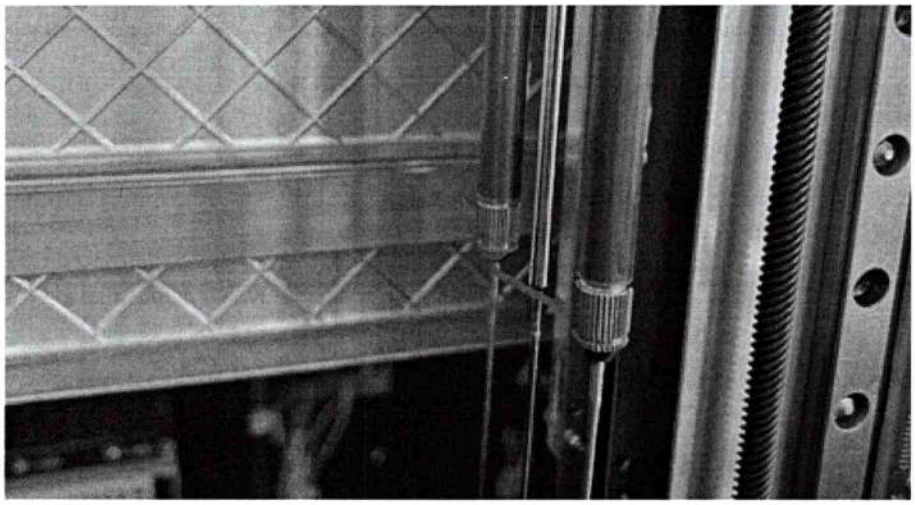
Situation 1: Measure to be taken for all systems

1) Start the maintenance workflow "Replace heated reagent probe R1".
2) Do not execute the described actions in the wizard.
3) The only action that shall be performed is **to tighten the heated reagent probe**.
   For t 711 instruments, both heated probes must be tightened.
   This can be done during any step of the maintenance workflow. When tightening the probe please make sure that:
   a) **You do not replace the probe**
   b) Apply the maximum reasonable force the user can apply with the fingers (as tight as possible without e.g. causing pain in the finger).
   c) Don't worry about applying force, nothing will break.

Picture 1: Heated reagent probe as displayed in the software wizard



Picture 2: Heated reagent probe **cobas t** 511



Picture 3: Heated reagent probes **cobas t** 711

4) Future probe replacements are done as usual with a special focus on tightening the probes properly as described in steps 3b-c.

Currently, in the wizard of the maintenance workflow, the instructions say that the probe must be mounted "hand tight". This part must be interpreted as described in the steps 3b-c above. The descriptions will be adapted in the user assistance and in the maintenance workflows.

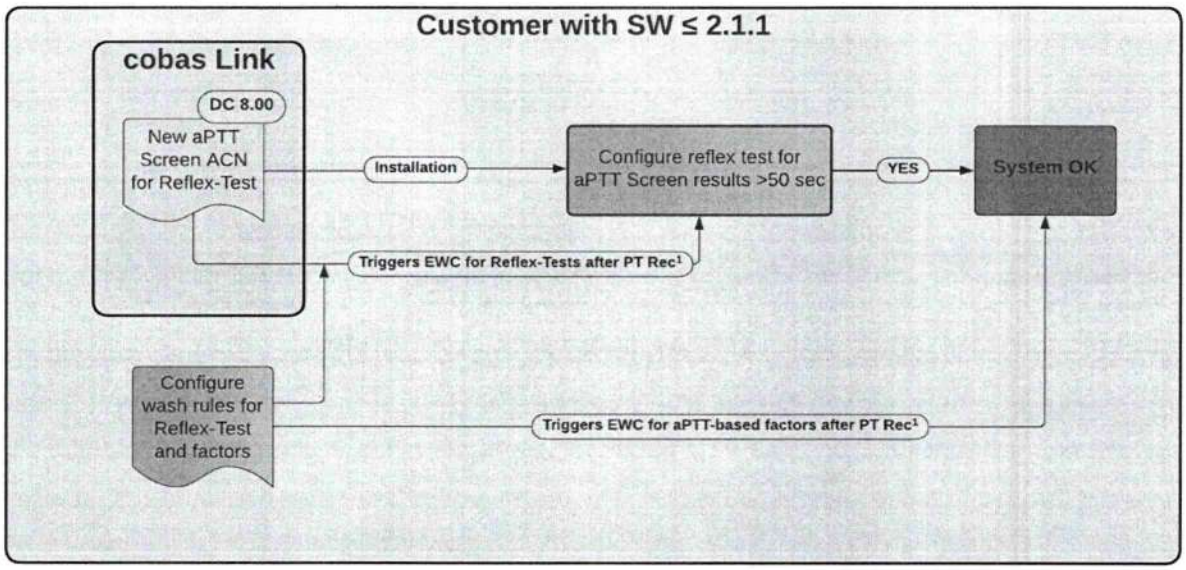
Situation 2: Principle of measure

The principle of the measure is to create a reflex test that is triggered in case an aPTT Screen result is 50s or higher. In this case a second aPTT Screen test (aPTT Screen Mod) is measured and in case there was a carryover condition, the instrument will first carry out an extra wash cycle.
Only the *aPTT Screen Mod* result must be interpreted if this occurs.
Optionally *aPTT Screen* can be defined in a way to suppress the original aPTT Screen result (see step 2 in instructions below). This might support result evaluation on LIS level too.

Example of result pair in this case:
aPTT Screen ****** > Val
aPTT Screen Mod 71s

Example of result pair without this configuration of the >Val Flag:
aPTT Screen 70s
aPTT Screen Mod 71s

SW versions 2.1.1 or earlier would require manual programming of extra wash cycles.
SW versions 2.1.2 or later, can use the new Reagent_COE e-Barcode V7 that contains all the new washrules. Wherever possible systems should be updated to SW versions 2.1.2 or higher, as this allows for a more convenient implementation of the required actions.

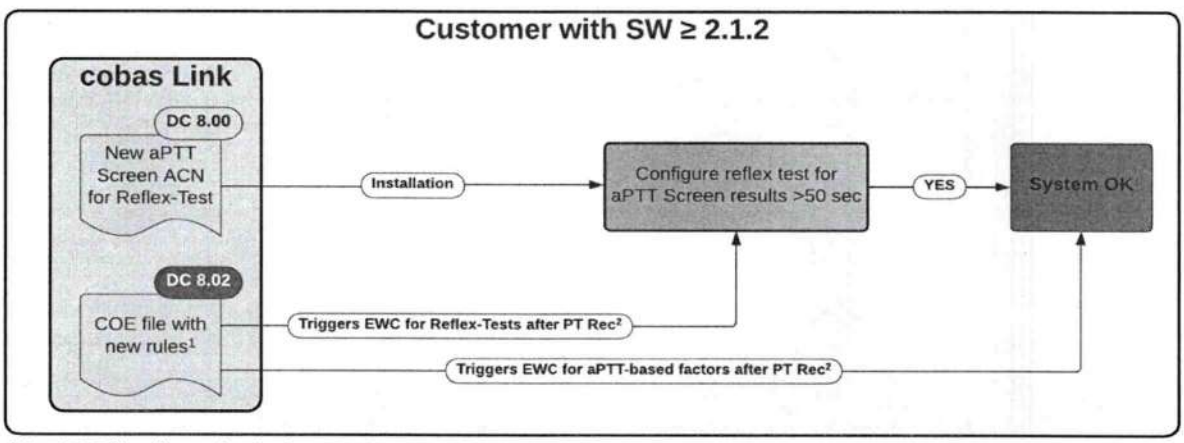


[1]PT Rec and PT-based factors

Picture 4: Illustration of measures for systems with SW 2.1.1. or before

Please note once the wash rules have been manually programmed:

- Once customers with SW 2.1.1 or earlier will update to SW 2.1.2 or 2.2.0, they will get the updated Reagent_COE e-Barcode V7.
  It is then required to delete all the manually programmed wash rules described in this attachment. This is done to avoid double wash rule definitions which the system can't handle, which would cause the instrument to go into error status.
- It is required to consider the information in this SBN if the customer is going to introduce any new factor assay in their lab. Programming an additional wash rule might be required, as also indicated in respective method sheets.



[1]New COE file will contain rules for aPTT Screen Reflex-Test and all aPTT-based factors
[2]PT Rec and PT-based factors

Picture 5: Illustration of measures for systems with SW 2.1.2 or newer

Summary of steps to implement in all SW Versions

1. Install the application aPTT Screen Mod (ACN28045).
2. Set up flagging of initial aPTT Screen result (for cases where *aPTT Screen Mod* is triggered)
3. Program the reflex rule on the system
4. Install the new Reagent_COE e-barcode file V7 (SW 2.1.2 or newer) or program the rules manually (SW 2.1.1 or before)
5. Result interpretation: As soon as there is an *aPTT Screen Mod* triggered by the system, the customers shall only use the *aPTT Screen Mod* result and not the aPTT Screen result, even in cases of marginal differences (Step 2 allows result suppressing)

Situation 2: Measures to be taken for all systems

1) Install and configure the new *aPTT Screen Mod* application with ACN 28045.
    a) Go to Administration > E-Library > Search and install e-barcodes
    b) Install aPTT Screen Mod (ACN 28045) Version 1

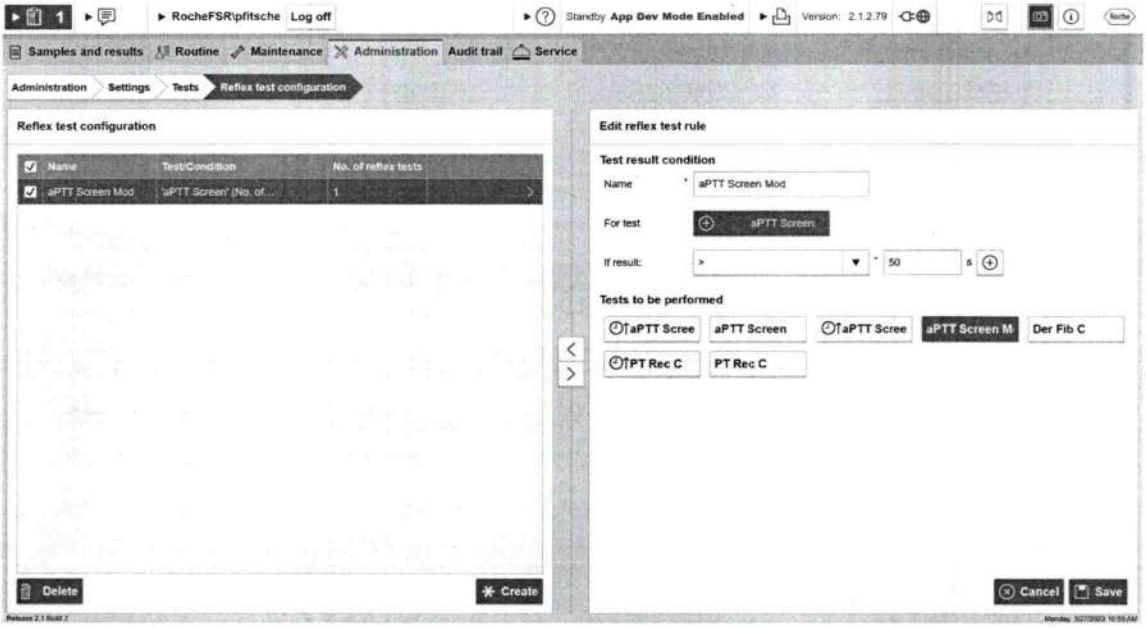
2) Optional step: Modify *aPTT Screen (not aPTT Screen Mod)* to suppress original aPTT Screen result
    a) Navigate to Administration > E-Library > View and edit installed e-barcodes
    b) Select the installed *aPTT Screen* (ACN 28040) and open the application parameter configuration by clicking on the arrow on the right hand side of the screen.
    c) Navigate to the second tab "Data alarms"
    d) Scroll down until you see the part "Result exceeds validation range upper limit [>Val]
    e) Click on "Edit"
    f) Tick the box to "Set active" enter the value 50 in the free text field. **Optionally**: do not tick the box to "Report result".
    g) By not ticking the box "Report result", the initial aPTT result will be suppressed (result will be shown as ******)

    Please note:
    Independent from passthrough mode the behaviour depends on the general setting for result suppression.
    Mode 1: Result would always be suppressed
    Mode 2: Result is suppressed dependent on setting (paragraph f and g above)
    Mode 3: Result is not suppressed, independent from setting in paragraph f and g above.

    The setting can be changed in Administration>Settings>Instrument settings>Process setting (requires Supervisor level).

3) Create a reflex test
    a) Go to Administration > Settings > Tests > Reflex test configuration
    b) Choose create
    c) Enter a name (Proposed name: *aPTT Screen Mod*)
    d) Choose the originally installed aPTT Screen application with ACN 28040
        i) IMPORTANT: Do not choose the newly installed aPTT Screen Mod application here
    e) Choose if result to be > 50 s

f) As test to be performed select the newly installed aPTT Screen Mod application, and then click "Save" to save this setting



Picture 6: Definition of the reflex test

4) Install *Reagent_COE e-Barcode Version 7 (displayed as 8.2.7*, only applicable for SW 2.1.2 or higher)
   a) Go to Administration > E-Library > Search and install e-barcodes
   b) Install *Reagent_COE e-Barcode Version 7 (displayed as 8.2.7).* It is distributed with the new method sheet Version 7.0.

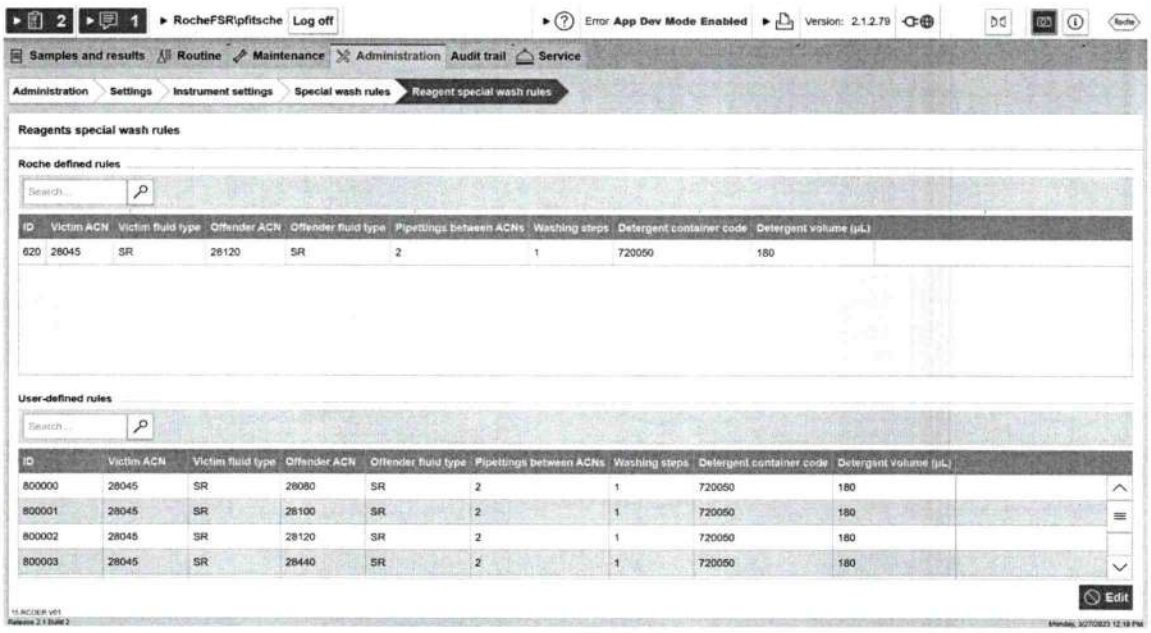
5) Configure wash rules (only applicable for 2.1.1 and lower)
   a) Please keep in mind that these wash rules can only be programmed after the tests (e.g. aPTT Screen Mod test (ACN 28045), FII (ACN 28440)) have been installed. But it is not necessary to install Factor tests that are not used by the customer.

      It is important to keep in mind that whenever a new test (e.g. Factor V) is installed in the future, to also program the associated wash rule. A respective disclaimer is in the method sheets of the affected assays.
   b) Log on as Supervisor or FSR
   c) Step 1 and 3 must be completed first
   d) Go to Administration > Settings > Instrument settings > Special wash rules > Reagent special wash rules
   e) The wash rules have to be entered as user defined wash rules

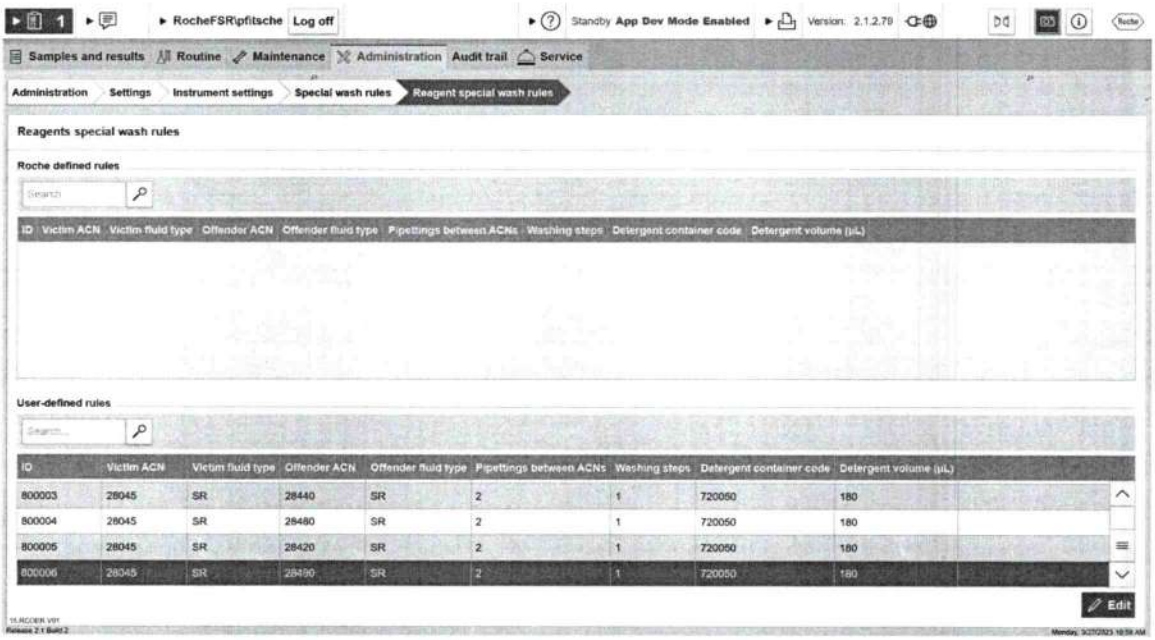
f) It is of utmost importance to work precisely and to enter each wash rule with the correct information. Risk of wrong results if not applied correctly!

g) Enter the wash rules as mentioned below one by one, refer also to the screenshots to see the final result. The used ID can be customer specific and is not relevant for the function.
Refer also to the screenshots below that show all 7 wash rules 1:1, in this example with IDs 800000 - 800006.

Victim ACN	Victim fluid type	Offender ACN	Offender fluid type	Pipettings between ACNs	Washing Steps	Detergent Container Code	Detergent volume [uL]
28045	SR	28080	SR	2	1	720050	180
28045	SR	28100	SR	2	1	720050	180
28045	SR	28120	SR	2	1	720050	180
28045	SR	28440	SR	2	1	720050	180
28045	SR	28480	SR	2	1	720050	180
28045	SR	28420	SR	2	1	720050	180
28045	SR	28490	SR	2	1	720050	180



Picture 7: New washrules (manual programming), Part I.



Picture 7: New washrules (manual programming), Part II.

Additional information

Check to verify if an instrument is affected by carryover

Not all instruments are affected to the same extent by this carryover.
Nevertheless it is not possible with reasonable effort to detect if a specific system is affected by carryover or not, therefore such a check is not offered.

Explanation about reflex test *aPTT Screen Mod*

Automatic reflex test for aPTT Screen results >=50 secs was provided to ensure detection of potential carry over effects while minimizing the laboratory workload and manual effort. 50 sec was chosen as the threshold in order to meet the maximum safety requirement in all foreseeable clinical situations. The aPTT Screen Mod repeats the aPTT Screen test, and automatically carries out extra wash only when a PT Rec reagent is pipetted before the aPTT Screen reagent. With this setup, we will achieve maximum safety while minimizing the amount of retest and extra wash. With this measure, the instrument throughput is also, if at all, only minimally impacted. Please note that aPTT Screen results <50 secs do not need to be retest because no significant carry over occurs

Result interpretation with *aPTT Screen Mod*

As soon as there is an *aPTT Screen Mod* result generated, the customer shall only interpret and report this result, even in cases of very small differences to the original result.

Refer to the instructions Step 2 to optionally set a flag to suppress the results of original aPTT Screen in case the reflex test rule is triggered.

Information about *aPTT Screen Mod*

aPTT Screen Mod is an exact copy of aPTT Screen. It will have exactly the same properties as the "normal" aPTT Screen assay. The only difference is that an extra wash cycle will be implemented between the PT Rec reagent pipetting and the *aPTT Screen Mod* assay.

Quality Controls for *aPTT Screen Mod*

It is technically not necessary to run Quality Controls for this assay, as this is already done for aPTT Screen.

Currently it is planned to provide target values for *aPTT Screen Mod* for Con 1, Con 2 and Con 4 with successive Quality Control lots.

It is then possible to either run the controls (set Controls to "mandatory" for the *aPTT Screen Mod* test in software) or to not run the controls (set to "optional") depending on the needs of the laboratory.

In case Quality Control results for *aPTT Screen Mod* are required/ requested by the customer prior to the availability of Con 1, Con 2 and Con 4, there is always the option to configure a 3rd party QC material which is assigned to the *aPTT Screen Mod*.

Please refer to the user assistance for detailed instructions on how to set up a 3rd party QC material.

Single use of aPTT Screen Mod:

The described measure was designed to ensure minimal impact of potential carryover while minimizing the amount of retest and extra wash, and to have minimal to no impact on the throughput of the system.

Implementation of an additional wash cycle independent of the initial aPTT Screen result would have a noticeable negative impact on the analyzer throughput. Depending on the test profiles the customer is using, throughput loss of up to 30-40% would take place.

If a customer intends to replace aPTT Screen with aPTT Screen Mod, and therefore to skip the reflex test solution and to accept more frequent extra wash cycles (incl. cleaner consumption) this can be done. We do not recommend this.

Consider also that until availability of next lots Con 1, Con 2 and Con 4 only 3rd party controls can be used.

Customers might use the aPTT Screen Mod also as occasional single test, in case an aPTT result >50s is already expected beforehand.