



## Urgent Field Safety Notice

Follow-up information

ACHC20-10.B1a.OUS.CHC

June 2020

**ADVIA® Chemistry 1800  
ADVIA Chemistry 2400  
ADVIA Chemistry XPT**

### **Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

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#### **Reason for Communication**

Siemens Healthcare Diagnostics Inc. issued Urgent Field Safety Notice (UFSN) ACHC20-10.A1.OUS.CHC in June 2020 to inform customers of a positive bias with Quality Control (QC) and patient sample values with the Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays on the ADVIA Chemistry system following calibration with affected Chemistry Calibrator lots.

As a follow up, we are providing additional information which may be considered when evaluating potential interim solutions until a new ADVIA Chemistry Calibrator lot suitable for use with the DBIL\_2 and TBIL\_2 assays becomes available.

The formulation, preparation, and assigned values for the ADVIA Chemistry Calibrator and the Atellica® CH Chemistry Calibrator are identical. The Atellica CH Chemistry Calibrator may be used in place of the ADVIA Chemistry Calibrator to calibrate the Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays on the ADVIA Chemistry system. Table 1 contains a list of affected lots which should not be used, and Table 2 contains a list of unaffected lots which are within the expiration date and may be used to calibrate the bilirubin assays.

Table 1. **Affected Lots**

<b>Product Name</b>	<b>Lot Numbers</b>
Atellica CH Chemistry Calibrator (SMN 11099411)	534179, 534179A, 534179B, 534179C, 534179D, 534179E 911591, 911591A, 911591B, 911591C
ADVIA Chemistry Chemistry Calibrator (SMN 10312279)	534177, 534177A, 534177B, 534177C, 534177D 960742

***Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

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Table 2. **Unaffected Lots**

<b>Product Name</b>	<b>Lot Numbers</b>
Atellica CH Chemistry Calibrator (SMN 11099411)	298873A, 298873B, 298873C, 298873D 491095, 491095A, 491095B, 491095C, 491095D
ADVIA Chemistry Chemistry Calibrator (SMN 10312279)	298846A, 298846B, 298846C 453025, 453025A, 453025B, 453025C

Additional lots of RANDOX Calibration Serum Level 3 (CAL 3) have been evaluated as a suitable alternative. In addition to RANDOX CAL 3 lot 1024UE, Siemens has verified the accuracy of RANDOX CAL 3 Lots 1014UE and 1162UE on the ADVIA Chemistry System by method comparison (see Figure 1 below). Results obtained at individual laboratories may vary. Siemens recommends that laboratories verify the accuracy of the results with acceptable QC performance when using the RANDOX CAL 3 Calibrator, prior to reporting of patient samples.

Refer to instructions in ACHC20-10.A1.OUS.CHC for using the RANDOX CAL 3 with ADVIA Chemistry DBil\_2 and TBil\_2 assays. Product availability may vary by country.

Refer to the Additional Instructions below for guidance when using the Atellica CH Calibrator for configuration of the calibrator definition.

**Actions to be taken by the Customer**

- Please review this letter with your Medical Director.
- Complete and return the Field Correction Effectiveness Check Form attached to this letter within 30 days.

Please retain this letter with your laboratory records and forward this letter to those who may have received this product.

We apologize for the inconvenience this situation may cause. If you have any questions, please contact your Siemens Healthineers Customer Care Center or your local Siemens Healthineers technical support representative.

ADVIA and Atellica are trademarks of Siemens Healthcare Diagnostics

**Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**Additional Instructions**

Refer to the SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400® section of the RANDOX CAL 3 IFU for assigned values for TBil\_2 and DBil\_2.

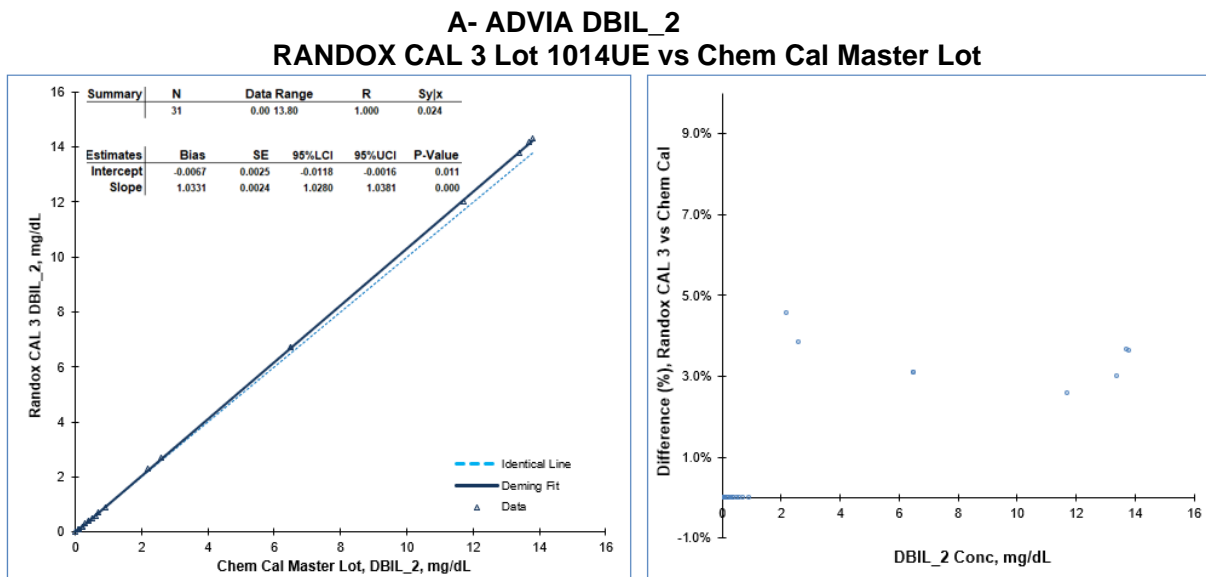
Note: Siemens has only verified the use of the RANDOX Calibration Serum Level 3 (CAL 3) Lots 1024UE, 1014UE and 1162UE to calibrate Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2). Siemens has not verified the performance of the other analyte constituents contained in the RANDOX CAL 3 product. Siemens is only recommending the use of verified RANDOX CAL 3 lots 1024UE, 1014UE and 1162UE.

Refer to the RANDOX CAL 3 IFU for complete instructions for use of this product.

**CALIBRATION:**

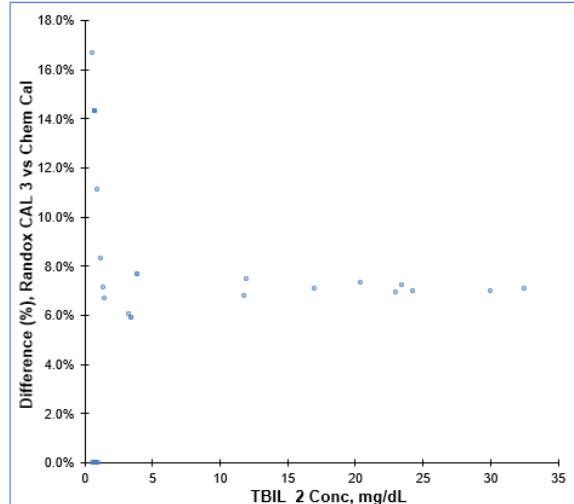
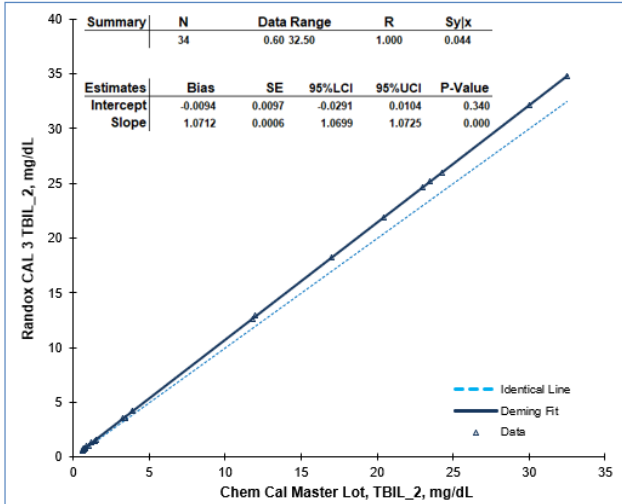
Prior to using the Atellica CH Chemistry Calibrator or RANDOX CAL 3 for the TBIL\_2 and DBIL\_2 assays, configure the calibrator definition and factor value (FV) in the ADVIA Chemistry instrument software using the steps outlined in the ADVIA Operator’s Guide. Please contact your Siemens Customer Care Center for additional assistance, if needed.

**FIGURE 1:** Method Comparison / Correlation and Difference (%) plots of patient sample recoveries comparison between RANDOX CAL 3 Lot 1014UE and Chem Cal Master Lot for (A) ADVIA Chemistry DBIL\_2; and (B) ADVIA TBIL\_2 and RANDOX CAL 3 lot 1162UE and Chem Cal Master Lot for (C) ADVIA Chemistry DBIL\_2; and (D) ADVIA TBIL\_2

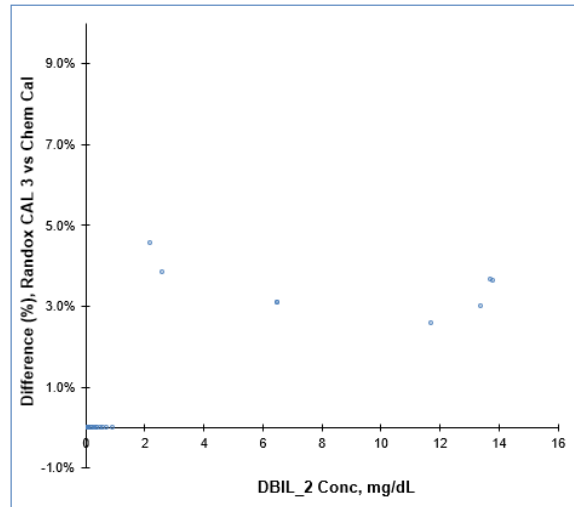
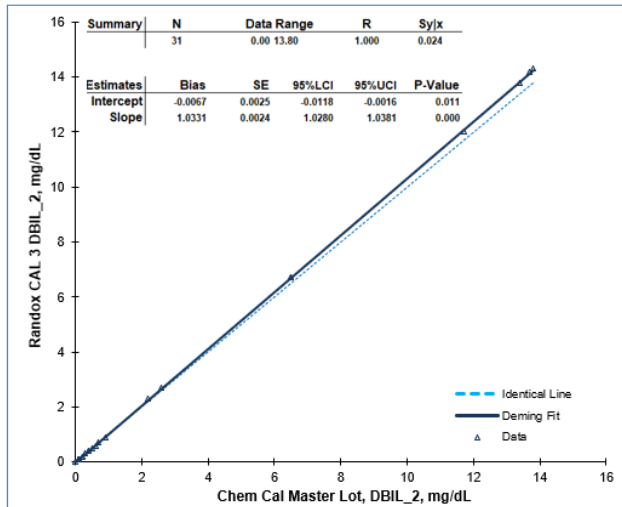


**Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**B- ADVIA TBIL\_2  
RANDOX CAL 3 Lot 1014UE vs Chem Cal Master Lot**

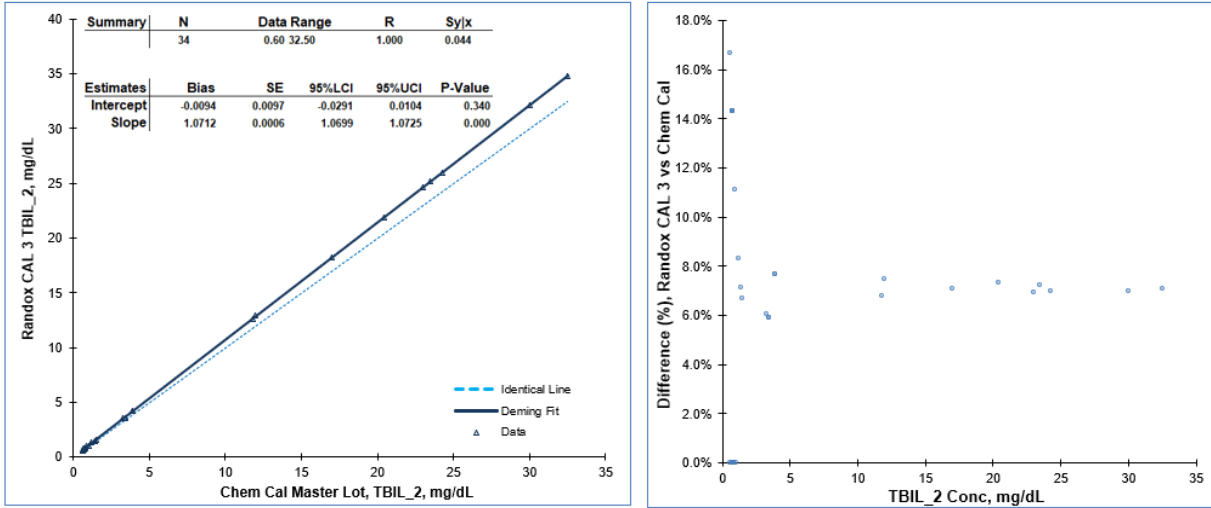


**C- ADVIA DBIL\_2  
RANDOX CAL 3 Lot 1162UE vs Chem Cal Master Lot**



**Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**D- ADVIA TBIL\_2  
RANDOX CAL 3 Lot 1162UE vs Chem Cal Master Lot**



***Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

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**FIELD CORRECTION EFFECTIVENESS CHECK**

This response form is to confirm receipt of the enclosed Siemens Healthcare Diagnostics Urgent Field Safety Notice (ACHC20-10.B1a.OUS.CHC) dated June 2020 titled *Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*. Please read the question below and indicate the appropriate answer. Fax this completed form to Siemens Healthcare Diagnostics at the fax number indicated at the bottom of this page.

1. I have read and understood the Urgent Field Safety Notice                      Yes                       No

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Name of person completing questionnaire: \_\_\_\_\_

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Title: \_\_\_\_\_

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Institution: \_\_\_\_\_ Instrument Serial Number: \_\_\_\_\_

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Street: \_\_\_\_\_

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City: \_\_\_\_\_ State: \_\_\_\_\_

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Phone: \_\_\_\_\_ Country: \_\_\_\_\_

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Customer Sold To #: \_\_\_\_\_ Customer Ship To #: \_\_\_\_\_

Please fax this completed form to the Customer Care Center at (###) ###-####. If you have any questions, contact your local Siemens technical support representative.

## Urgent Field Safety Notice

**ACHC20-10.A1.OUS.CHC**

**June 2020**

**ADVIA® Chemistry 1800  
ADVIA Chemistry 2400  
ADVIA Chemistry XPT**

### **Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

Our records indicate that you may have received the following product:

**Table 1. ADVIA® Chemistry Systems Affected Product:**

<b>Calibrator</b>	<b>Siemens Material Number (SMN) /Reference Number (REF)</b>	<b>Lot Number</b>	<b>Expiration Date</b>	<b>Distribution Date</b>
Chemistry Calibrator	10312279 / 09784096	534177	2021-09-30	2019-12-31
		534177A	2021-10-31	2020-03-28
		534177B	2021-12-31	2020-01-17
		534177C	2022-01-31	2020-02-24
		534177D	2022-03-31	2020-06
		960742	2022-05-31	2020-06

### **Reason for Correction**

The purpose of this communication is to inform you of an issue with the Chemistry Calibrator (Chem Cal) lots indicated in Table 1 above and provide instructions on actions that your laboratory must take.

Siemens Healthcare Diagnostics has observed a positive bias with Quality Control (QC) and patient sample values for Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) assays on the ADVIA Chemistry system following calibration with affected Chemistry Calibrator lots listed in Table 1. The bias has been attributed to bilirubin instability with these lots of Chemistry Calibrator. The positive bias may lead to QC results exceeding a laboratory's established ranges. Calibration errors may also be observed. See Table 2 below for representative QC

**Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

performance from Siemens internal testing with affected Chem Cal lots. Testing of patient samples demonstrated similar performance.

**Table 2: Representative Internal QC Testing Recovery when using Affected Calibrator Lots vs. Expected Values**

Assay	QC Product Lot	QC Level	Expected Mean mg/dL (µmol/L)	Expected Range mg/dL (µmol/L)	Recovery when using Affected Calibrator lots mg/dL (µmol/L)	% Bias
DBIL_2	Bio-Rad Multiqual Lot 47980	1	0.3 (5.1)	0.2 - 0.4 (3.4 - 6.8)	0.3 (5.1)	0%
		2	1.4 (23.9)	1.3 - 1.5 (22.2 - 25.7)	1.7 (29.1)	+21%
		3	2.4 (41.0)	2.0 - 2.8 (34.2 - 47.9)	3.2 (54.7)	+33%
	Bio-Rad Pediatric Control Lot 44350	2	7.5 (128.3)	7.2 - 7.8 (123.1 - 133.4)	10.1 (172.7)	+35%
TBIL_2	Bio-Rad Multiqual Lot 47980	1	0.7 (12.0)	0.6 - 0.8 (10.3 - 13.7)	0.8 (13.7)	+14%
		2	3.3 (56.4)	3.2 - 3.4 (54.7 - 58.1)	3.6 (61.6)	+9%
		3	7.6 (130.0)	7.2 - 8.1 (123.1 - 138.5)	8.4 (143.6)	+11%
	Bio-Rad Pediatric Control Lot 44350	2	18.0 (307.8)	17.4 - 18.6 (297.5 - 318.1)	19.8 (338.6)	+10%

All other analytes present in the Chem Cal continue to meet product standards.

All available lots of Chem Cal currently in Siemens inventory are similarly impacted. Siemens is working to restore the bilirubin stability of the Chem Cal. A follow up communication will be issued when a Chem Cal lot suitable for use with the DBIL\_2 and TBIL\_2 assays becomes available.

The root cause of this issue is under investigation.

**Risk to Health**

The calibrator issue described above may lead to an apparent delay in testing due to the inability to calibrate the assay or due to quality control results that do not meet acceptability criteria. If quality control results are within range when using an affected calibrator lot, the difference in patient results when compared to an unaffected calibration would not be expected to lead to a clinically significant difference in patient management. Siemens is not recommending a review of previously generated results.



***Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

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**Actions to be taken by the Customer**

- Discontinue use of the Chem Cal lots listed in Table 1 for DBIL\_2 and TBIL\_2 calibration. The lots remain suitable for calibration of the other analytes contained in the Chem Cal.
- Reserve any unaffected lots of Chem Cal within the expiration date (not listed in Table 1) for calibration of only DBIL\_2 and TBIL\_2.
- If an unaffected lot of Chem Cal is not available, Siemens has evaluated the use of the RANDOX Calibration Serum Level 3 (CAL 3) Lot 1024UE as a suitable alternative. Siemens has verified the accuracy of this calibrator on the ADVIA Chemistry System by method comparison (see Figure 1 below). Results obtained at individual laboratories may vary. Siemens recommends that laboratories verify the accuracy of the results with acceptable QC performance when using the RANDOX CAL 3 calibrator, prior to reporting of patient samples. Please see instructions in the Additional Comments Section below. Product availability may vary by country.
- If the recommendations above are not suitable for your laboratory, alternative testing is recommended for the ADVIA Chemistry DBIL\_2 and TBIL\_2 assays.
- Complete and return the Field Correction Effectiveness Check attached to this letter within 30 days.
- Review this letter with your Medical Director.

Please retain this letter with your laboratory records and forward this letter to those who may have received this product.

We apologize for the inconvenience this situation may cause. If you have any questions, please contact your Siemens Healthineers Customer Care Center or your local Siemens Healthineers technical support representative.

ADVIA is a trademark of Siemens Healthcare Diagnostics.

*Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*

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**Additional Instructions:**

**RANDOX CALIBRATION SERUM LEVEL 3 (CAL 3) Ordering information:**

Product Name: RANDOX Calibration Serum Level 3 (CAL 3) Lot 1024UE  
Siemens Material Number (SMN) / Reference Number (REF): 10328299 / 8492806  
RANDOX Catalog Number CAL 2351 (if ordered directly from RANDOX)

**RANDOX CALIBRATION SERUM LEVEL 3 (CAL 3) PRODUCT INFORMATION (as published in the RANDOX Product Insert):**

**Storage and Stability Requirements for Bilirubin:**

Un-reconstituted: Un-reconstituted serum is stable up to the expiry date shown on the side of each individual bottle.

Reconstituted: Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 1 day at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.

**Preparation for Use:**

Serum must only be reconstituted using the following procedure:

1. Open the vial carefully, avoiding any loss of material.
2. Reconstitute by pipetting exactly 5 ml of distilled water at +15°C to +25°C, into the vial.
3. Replace the rubber stopper and leave to stand for 30 minutes out of bright light before use.
4. Swirl gently several times during the reconstitution period to ensure that the contents are completely dissolved.
5. Prior to use, mix the contents by inverting the vial. Do not shake the vial as the formation of foam should be avoided.

Ensure that no lyophilized material remains un-reconstituted.

6. The serum is then ready for use with either a manual test or with an automated instrument.

**Assigned Values**

Refer to the SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400® section of the RANDOX CAL 3 IFU for assigned values for TBIL\_2 and DBIL\_2.

Note: Siemens has only verified the use of the RANDOX Calibration Serum Level 3 (CAL 3) Lot 1024UE to calibrate Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2). Siemens has not verified the performance of the other analyte constituents contained in the RANDOX CAL 3 product. Siemens is only recommending the use of verified RANDOX CAL 3 lot 1024UE.

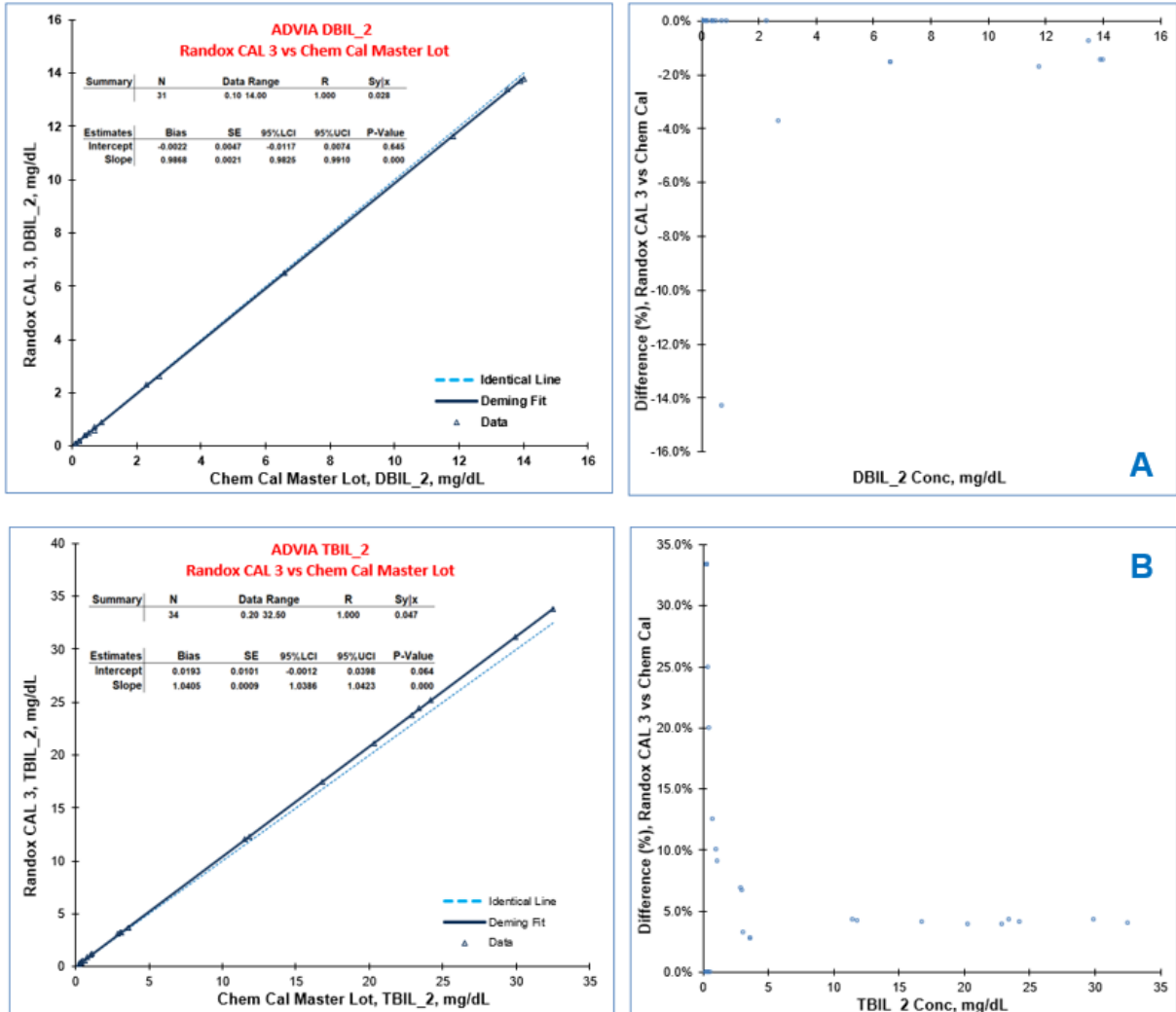
Refer to the RANDOX CAL 3 IFU for complete instructions for use of this product.

**CALIBRATION:**

Prior to using the RANDOX CAL 3 for the TBIL\_2 and DBIL\_2 assays, configure the calibrator definition and factor value (FV) in the ADVIA Chemistry instrument software using the steps outlined in the ADVIA Operator's Guide. Please contact your Siemens Customer Care Center for additional assistance, if needed.

**Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**FIGURE 1:** Method Comparison / Correlation and Difference (%) plots of patient sample recoveries comparison between RANDOX CAL 3 and Chem Cal Master Lot for (A) ADVIA DBIL\_2; and (B) ADVIA TBIL\_2.



***Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

**FIELD CORRECTION EFFECTIVENESS CHECK**

This response form is to confirm receipt of the enclosed Siemens Healthcare Diagnostics Urgent Field Safety Notice (ACHC20-10.A.OUS.CHC) dated June 2020 titled *Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*. Please read the question below and indicate the appropriate answer. Fax this completed form to Siemens Healthcare Diagnostics at the fax number indicated at the bottom of this page.

1. I have read and understood the Urgent Field Safety Notice                      Yes                       No

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Name of person completing questionnaire: \_\_\_\_\_

Title: \_\_\_\_\_

Institution: \_\_\_\_\_ Instrument Serial Number: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Phone: \_\_\_\_\_ Country: \_\_\_\_\_

Customer Sold To #: \_\_\_\_\_ Customer Ship To #: \_\_\_\_\_

Please fax this completed form to the Customer Care Center at (###) ###-####. If you have any questions, contact your local Siemens technical support representative.

## Urgent Field Safety Notice

Follow-up information

**ACHC20-10.B1a.OUS**

**June 2020**

### **Atellica® CH 930 Analyzer**

### **Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

#### **Reason for Communication**

Siemens Healthcare Diagnostics Inc. issued Urgent Field Safety Notice (UFSN) ACHC20-10.A1.OUS in June 2020 to inform customers of a positive bias with Quality Control (QC) and patient sample values with the Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays on the Atellica CH following calibration with affected Chemistry Calibrator lots.

As a follow up, we are providing additional information which may be considered when evaluating potential interim solutions until a new Atellica CH Chemistry Calibrator lot suitable for use with the DBil\_2 and TBil\_2 assays becomes available.

The formulation, preparation, and assigned values for the ADVIA Chemistry Calibrator and the Atellica® CH Chemistry Calibrator are identical. The ADVIA Chemistry Calibrator may be used in place of the Atellica CH Chemistry Calibrator to calibrate the Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays on the Atellica CH Analyzer. Table 1 contains a list of affected lots which should not be used, and Table 2 contains a list of unaffected lots which are within the expiration date and may be used to calibrate the bilirubin assays.

**Table 1. Affected Lots**

<b>Product Name</b>	<b>Lot Numbers</b>
Atellica CH Chemistry Calibrator (SMN 11099411)	534179, 534179A, 534179B, 534179C, 534179D, 534179E 911591, 911591A, 911591B, 911591C
AD VIA Chemistry Chemistry Calibrator (SMN 10312279)	534177, 534177A, 534177B, 534177C, 534177D 960742

***Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

Table 2. **Unaffected Lots**

<b>Product Name</b>	<b>Lot Numbers</b>
Atellica CH Chemistry Calibrator (SMN 11099411)	298873A, 298873B, 298873C, 298873D 491095, 491095A, 491095B, 491095C, 491095D
ADVIA Chemistry Chemistry Calibrator (SMN 10312279)	298846A, 298846B, 298846C 453025, 453025A, 453025B, 453025C

Additional lots of RANDOX Calibration Serum Level 3 (CAL 3) have been evaluated as a suitable alternative. In addition to RANDOX CAL 3 lot 1024UE, Siemens has verified the accuracy of RANDOX CAL 3 Lots 1014UE and 1162UE on the Atellica CH by method comparison (see Figure 1 below). Results obtained at individual laboratories may vary. Siemens recommends that laboratories perform a lot calibration with the initial use and verify the accuracy of the results with acceptable QC performance when using the RANDOX CAL 3 Calibrator, prior to reporting of patient samples.

Refer to instructions in ACHC20-10.A1.OUS for using the RANDOX CAL 3 with Atellica CH DBil\_2 and TBil\_2 assays. Product availability may vary by country.

Refer to the Additional Instructions below for guidance when using the ADVIA Chemistry Calibrator for manual configuration of calibrator definitions.

**Actions to be taken by the Customer**

- Please review this letter with your Medical Director.
- Complete and return the Field Correction Effectiveness Check Form attached to this letter within 30 days.

Please retain this letter with your laboratory records and forward this letter to those who may have received this product.

We apologize for the inconvenience this situation may cause. If you have any questions, please contact your Siemens Healthineers Customer Care Center or your local Siemens Healthineers technical support representative.

ADVIA and Atellica are trademarks of Siemens Healthcare Diagnostics

*Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*

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### **Additional Instructions**

Refer to the SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400® section of the RANDOX CAL 3 IFU for assigned values for TBil\_2 and DBil\_2.

Note: Siemens has only verified the use of the RANDOX Calibration Serum Level 3 (CAL 3) Lots 1024UE, 1014UE and 1162UE to calibrate Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2). Siemens has not verified the performance of the other analyte constituents contained in the RANDOX CAL 3 product. Siemens is only recommending the use of verified RANDOX CAL 3 lots 1024UE, 1014UE and 1162UE.

Refer to the RANDOX CAL 3 IFU for complete instructions for use of this product.

### **CALIBRATION:**

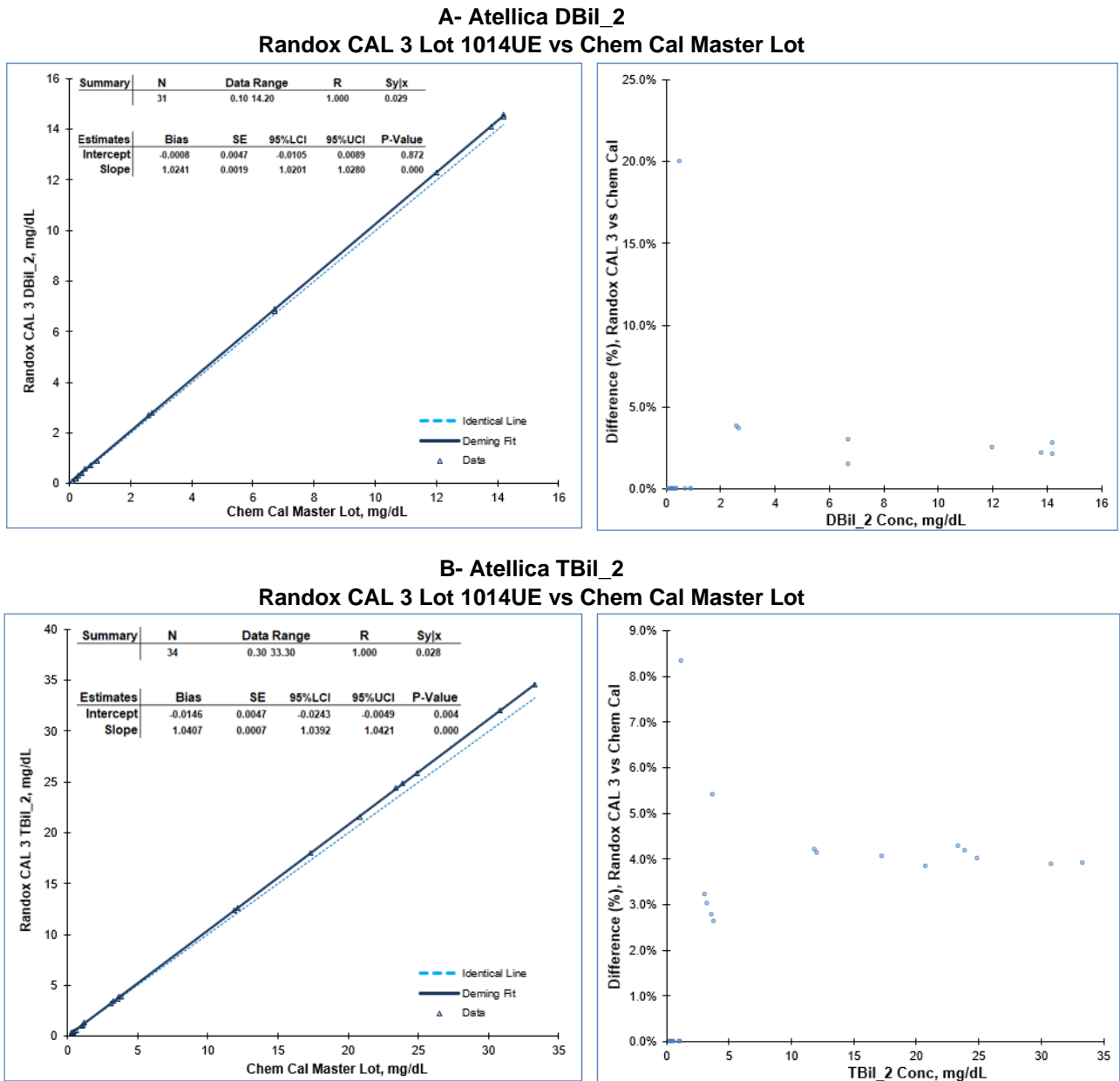
#### **Manually Adding Atellica CH Calibrator Definitions**

1. On the Command bar, select **Calibration > Calibrator Definitions**.
2. Select **Add New**.
3. In Add Calibrator Definition, select the Calibrator Material option circle.
4. From the Assay Type drop-down menu, select CH.
5. In Material Name enter a name for the calibrator definition, e.g. ADVIA Chemistry Calibrator, RANDOX CAL 3.
6. In Material ID, enter the ID from the calibrator lot-specific value sheet.  
NOTE: The Material ID is an optional field that contains 1 or 2 alphanumeric characters.
7. In Lot ID, enter the calibrator lot.
8. In Expiration Date, select the calibrator material expiration date from the drop-down calendar.
9. In Revision, enter the revision number from the calibrator lot-specific value sheet.
10. To enable the calibrator material for calibration, select **Active**.
11. Do not select **Store Onboard**. Stability of the ADVIA Chemistry Calibrator and the RANDOX CAL 3 has not been established for onboard storage on the Sample Handler of the Atellica system and is not recommended by Siemens.
12. Select 1 or more assays associated with the calibrator material.
13. Enter the concentration values for each level from the calibrator lot-specific value sheet.
14. Select **Save**.

Refer to the Atellica CH Online Help Guide or contact the Siemens Customer Care Center for additional assistance, if needed.

**Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

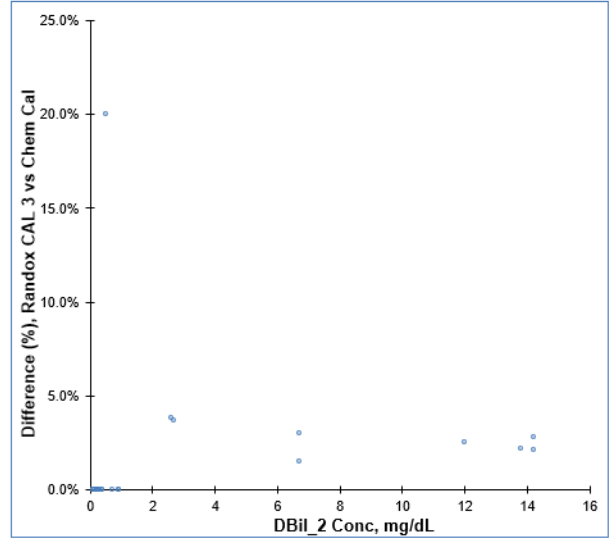
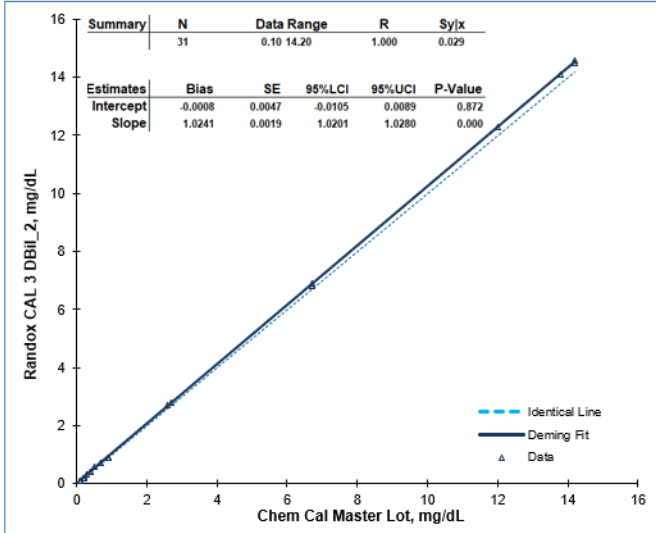
**FIGURE 1:** Method Comparison / Correlation and Difference (%) plots of patient sample recoveries comparison between RANDOX CAL 3 Lot 1014UE and Chem Cal Master Lot for (A) Atellica CH DBil\_2; and (B) Atellica CH TBil\_2. and RANDOX CAL 3 lot 1162UE and Chem Cal Master Lot for (C) Atellica CH DBIL\_2 and (D) Atellica CH TBIL\_2



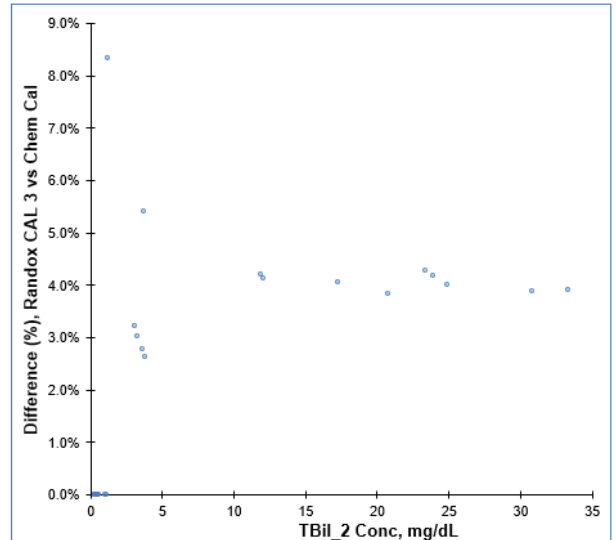
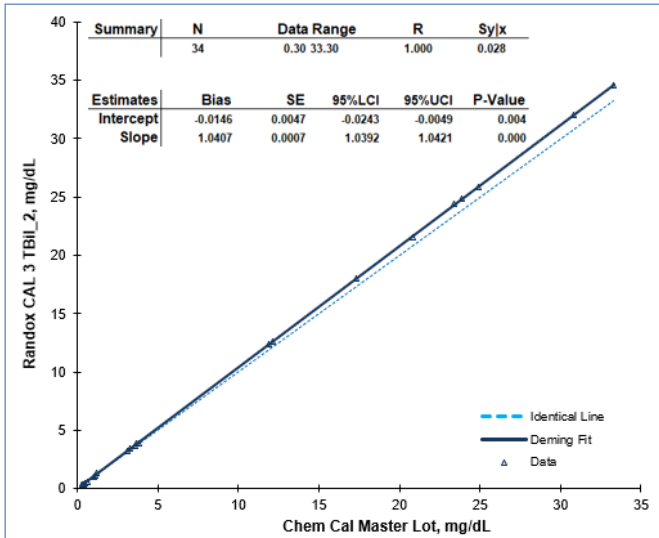


**Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**C- Atellica DBil\_2  
Randox CAL 3 Lot 1162UE vs Chem Cal Master Lot**



**D- Atellica TBil\_2  
Randox CAL 3 Lot 1162UE vs Chem Cal Master Lot**



***Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

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**FIELD CORRECTION EFFECTIVENESS CHECK**

This response form is to confirm receipt of the enclosed Siemens Healthcare Diagnostics Urgent Field Safety Notice (ACHC20-10.B1a.OUS) dated June 2020 titled *Positive Bias Observed with Direct Bilirubin (DBIL\_2) and Total Bilirubin (TBIL\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*. Please read the question below and indicate the appropriate answer. Fax this completed form to Siemens Healthcare Diagnostics at the fax number indicated at the bottom of this page.

1. I have read and understood the Urgent Field Safety Notice                      Yes                       No

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Name of person completing questionnaire: \_\_\_\_\_

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Title: \_\_\_\_\_

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Institution: \_\_\_\_\_ Instrument Serial Number: \_\_\_\_\_

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Street: \_\_\_\_\_

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City: \_\_\_\_\_ State: \_\_\_\_\_

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Phone: \_\_\_\_\_ Country: \_\_\_\_\_

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Customer Sold To #: \_\_\_\_\_ Customer Ship To #: \_\_\_\_\_

Please fax this completed form to the Customer Care Center at (###) ###-####. If you have any questions, contact your local Siemens technical support representative.

## Urgent Field Safety Notice

**ACHC20-10.A1.OUS**

**June 2020**

### Atellica® CH 930 Analyzer

### Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots

Our records indicate that you may have received the following product:

**Table 1. Atellica® CH Affected Product:**

Calibrator	Siemens Material Number (SMN)	Lot Number	Expiration Date	Distribution Date
Chemistry Calibrator	11099411	534179	2021-10-31	2019-12-17
		534179A	2021-12-31	2020-01-20
		534179B	2021-12-31	2020-01-16
		534179C	2022-01-31	2020-02-24
		534179D	2022-01-31	2020-02-24
		534179E	2022-03-31	2020-04-23
		911591	2022-03-31	2020-04-07
		911591A	2022-05-31	2020-06
		911591B	2022-05-31	2020-06
		911591C	2022-05-31	2020-06

### Reason for Correction

The purpose of this communication is to inform you of an issue with the Chemistry Calibrator (Chem Cal) lots indicated in Table 1 above and provide instructions on actions that your laboratory must take.

Siemens Healthcare Diagnostics has observed a positive bias with Quality Control (QC) and patient sample values for Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) assays on the Atellica system following calibration with affected Chemistry Calibrator lots listed in Table 1. The bias has been attributed to bilirubin instability with these lots of Chemistry Calibrator. The positive bias may lead to QC results exceeding a laboratory's established ranges. Calibration errors may also be observed. See Table 2 below for representative QC performance from Siemens internal testing with affected Chem Cal lots. Testing of patient samples demonstrated similar performance.

**Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**Table 2: Representative Internal QC Testing Recovery when using Affected Calibrator Lots vs. Expected Values**

Assay	QC Product Lot	QC Level	Expected Mean mg/dL (µmol/L)	Expected Range mg/dL (µmol/L)	Recovery when using Affected Calibrator lots mg/dL (µmol/L)	% Bias
DBil_2	Bio-Rad Multiquel Lot 47980	1	0.4 (6.8)	0.2 - 0.4 (3.4 - 6.8)	0.3 (5.1)	-25%
		2	1.4 (23.9)	1.3 - 1.5 (22.2 - 25.7)	1.6 (27.4)	+14%
		3	2.9 (49.6)	2.5 - 3.3 (42.8 - 56.4)	3.1 (53.0)	+7%
	Bio-Rad Pediatric Control Lot 44350	2	7.5 (128.3)	7.2 - 7.8 (123.1-133.4)	8.9 (152.2)	+19%
TBil_2	Bio-Rad Multiquel Lot 47980	1	0.7 (12.0)	0.6 - 0.8 (10.3 - 13.7)	0.7 (12.0)	0%
		2	3.3 (56.4)	3.2 - 3.4 (54.7 - 58.1)	3.5 (59.9)	+6%
		3	7.8 (133.4)	7.3 - 8.3 (124.8 - 141.9)	8.0 (136.8)	+3%
	Bio-Rad Pediatric Control Lot 44350	2	18.0 (307.8)	17.4 - 18.6 (297.5 - 318.1)	18.7 (319.8)	+4%

All other analytes present in the Chem Cal continue to meet product standards.

All available lots of Chem Cal currently in Siemens inventory are similarly impacted. Siemens is working to restore the bilirubin stability of the Chem Cal. A follow up communication will be issued when a Chem Cal lot suitable for use with the Atellica CH DBil\_2 and TBil\_2 assays becomes available.

The root cause of this issue is under investigation.

**Risk to Health**

The calibrator issue described above may lead to an apparent delay in testing due to the inability to calibrate the assay or due to quality control results that do not meet acceptability criteria. If quality control results are within range when using an affected calibrator lot, the difference in patient results when compared to an unaffected calibration would not be expected to lead to a clinically significant difference in patient management. Siemens is not recommending a review of previously generated results.

***Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

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**Actions to be taken by the Customer**

- Discontinue use of the Chem Cal lots listed in Table 1 for DBil\_2 and TBil\_2 calibration. The lots remain suitable for calibration of the other analytes contained in the Chem Cal.
- Reserve any unaffected lots of Chem Cal within the expiration date (not listed in Table 1) for calibration of only DBil\_2 and TBil\_2.
- A valid calibration can be extended based on acceptable QC performance. Instructions to extend calibration can be found in the Atellica CH Online Help Guide.
- If an unaffected lot of Chem Cal is not available, Siemens has evaluated the use of the RANDOX Calibration Serum Level 3 (CAL 3) Lot 1024UE as a suitable alternative. Siemens has verified the accuracy of this calibrator on the Atellica CH System by method comparison (see Figure 1 below). Results obtained at individual laboratories may vary. Siemens recommends that laboratories verify the accuracy of the results with acceptable QC performance when using the RANDOX CAL 3 calibrator prior to reporting of patient samples. Please see instructions in the Additional Comments Section below. Product availability may vary by country.
- If the recommendations above are not suitable for your laboratory, alternative testing is recommended for the Atellica CH DBil\_2 and TBil\_2 assays.
- Complete and return the Field Correction Effectiveness Check attached to this letter within 30 days.
- Review this letter with your Medical Director.

Please retain this letter with your laboratory records and forward this letter to those who may have received this product.

We apologize for the inconvenience this situation may cause. If you have any questions, please contact your Siemens Customer Care Center or your local Siemens Technical Support Representative.

Atellica CH is a trademark of Siemens Healthcare Diagnostics.

*Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*

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**Additional Instructions:**

**RANDOX CALIBRATION SERUM LEVEL 3 (CAL 3) Ordering Information:**

Product Name: RANDOX Calibration Serum Level 3 (CAL 3) Lot 1024UE  
Product Siemens Material Number (SMN) / Reference Number (REF): 10328299 / 8492806  
RANDOX Catalog Number CAL 2351 (if ordered directly from RANDOX)

**RANDOX CALIBRATION SERUM LEVEL 3 (CAL 3) PRODUCT INFORMATION (as published in the RANDOX Product Insert):**

**Storage and Stability Requirements for Bilirubin:**

Un-reconstituted: Un-reconstituted serum is stable up to the expiry date shown on the side of each individual bottle.

Reconstituted: Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 1 day at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.

**Preparation for Use:**

Serum must only be reconstituted using the following procedure:

1. Open the vial carefully, avoiding any loss of material.
  2. Reconstitute by pipetting exactly 5 ml of distilled water at +15°C to +25°C, into the vial.
  3. Replace the rubber stopper and leave to stand for 30 minutes out of bright light before use.
  4. Swirl gently several times during the reconstitution period to ensure that the contents are completely dissolved.
  5. Prior to use, mix the contents by inverting the vial. Do not shake the vial as the formation of foam should be avoided.
- Ensure that no lyophilized material remains un-reconstituted.
6. The serum is then ready for use with either a manual test or with an automated instrument.

**Assigned Values**

Refer to the SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400® section of the RANDOX CAL 3 IFU for assigned values for TBil\_2 and DBil\_2.

Note: Siemens has only verified the use of the RANDOX Calibration Serum Level 3 (CAL 3) Lot 1024UE to calibrate Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2). Siemens has not verified the performance of the other analyte constituents contained in the RANDOX CAL 3 product. Siemens is only recommending the use of verified RANDOX CAL 3 lot 1024UE.

Refer to the RANDOX CAL 3 IFU for complete instructions for use of this product.

**CALIBRATION:**

**Manually Adding Atellica CH Calibrator Definitions**

1. On the Command bar, select **Calibration > Calibrator Definitions**.
2. Select **Add New**.
3. In Add Calibrator Definition, select the Calibrator Material option circle.
4. From the Assay Type drop-down menu, select CH.

***Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

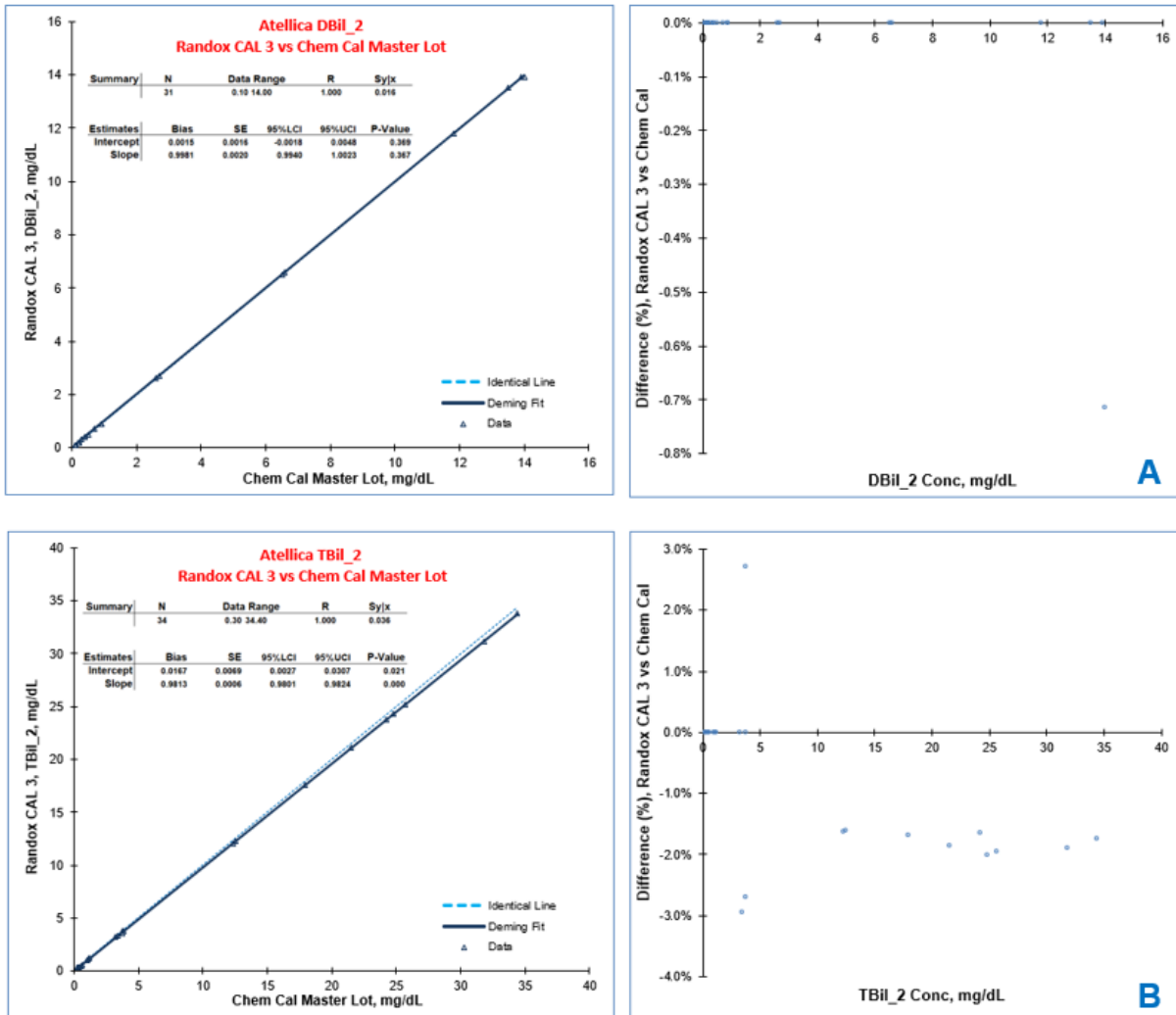
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5. In Material Name enter a name for the calibrator definition, e.g. RANDOX CAL3
6. In Material ID, enter the ID from the calibrator lot-specific value sheet.  
NOTE: The Material ID is an optional field that contains 1 or 2 alphanumeric characters.
7. In Lot ID, enter the calibrator lot.
8. In Expiration Date, select the calibrator material expiration date from the drop-down calendar.
9. In Revision, enter the revision number from the calibrator lot-specific value sheet.
10. To enable the calibrator material for calibration, select **Active**.
11. Do not select **Store Onboard**. Stability of the RANDOX CAL 3 has not been established for onboard storage on the Sample Handler of the Atellica CH system and is not recommended by Siemens.
12. Select 1 or more assays associated with the calibrator material.
13. Enter the concentration values for each level from the calibrator lot-specific value sheet.
14. Select **Save**.

Refer to the Atellica CH Online Help Guide or contact the Siemens Customer Care Center for additional assistance, if needed.

**Positive Bias Observed with Direct Bilirubin (DBil<sub>2</sub>) and Total Bilirubin (TBil<sub>2</sub>) Assays Following Calibration with Multiple Chemistry Calibrator Lots**

**FIGURE 1:** Method Comparison / Correlation and Difference (%) plots of patient sample recoveries comparison between RANDOX CAL 3 and Chem Cal Master Lot for (A) Atellica CH DBil<sub>2</sub>; (B) Atellica CH TBil<sub>2</sub>.





***Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots***

**FIELD CORRECTION EFFECTIVENESS CHECK**

This response form is to confirm receipt of the enclosed Siemens Healthcare Diagnostics Urgent Field Safety Notice (ACHC20-10.A.OUS) dated June 2020 titled *Positive Bias Observed with Direct Bilirubin (DBil\_2) and Total Bilirubin (TBil\_2) Assays Following Calibration with Multiple Chemistry Calibrator Lots*. Please read the question below and indicate the appropriate answer. Fax this completed form to Siemens Healthcare Diagnostics at the fax number indicated at the bottom of this page.

1. I have read and understood the Urgent Field Safety Notice instructions provided in this letter. Yes  No

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Name of person completing questionnaire: \_\_\_\_\_

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Title: \_\_\_\_\_

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Institution: \_\_\_\_\_ Instrument Serial Number: \_\_\_\_\_

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Street: \_\_\_\_\_

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City: \_\_\_\_\_ State: \_\_\_\_\_

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Phone: \_\_\_\_\_ Country: \_\_\_\_\_

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Customer Sold To #: \_\_\_\_\_ Customer Ship To #: \_\_\_\_\_

Please fax this completed form to the Customer Care Center at (###) ###-####. If you have any questions, contact your local Siemens technical support representative.