

## DEKS

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**First day of analysis:**  
23.01.2024

**Last day of analysis:**  
24.01.2024

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### This report contains:

- This letter
- Summary
- Individual results

Approved by MP  
31.01.2024

**Next rounds:**  
15.04.2024  
09.09.2024  
04.11.2024

# 4248 DK Cells in body fluid EQA report 01/2024

## Shipment

The materials were sent refrigerated to prolong the life of the cells. The materials were sent from DEKS on November 6th. Most participants received the materials on 23.01. and 2 participants received the materials on 24.01, which was also the last analysis day..

## Number of participants

Of the 50 participants 47 have this time reported results from 3 different instrument types and 2 participants have used microscopy to count erythrocytes.

## Sample material

The materials were Cellpack DCL to which cells from the buffy coat layer and erythrocytes from EDTA blood samples were added.

## Statistics

Mean, SD and CV% are calculated for all results as well as for the principle groups.

The acceptance interval is calculated from the overall mean value (M), which assumes that the results are normally distributed.

## Method principles

Sysmex: The method principle for erythrocytes is impedance and for leukocytes and nucleated cells it is light scattering and fluorescence.

GloCyte: The method principle is fluorescence for both erythrocytes and leukocytes.

## Target values

The recommended target values (M) shown in the histograms are the mean value of all results.

## Outliers

Outliers are defined as a result, which is more than 3.2 SD from the target value.

The number of outliers is indicated in the last column of the *Summary*.

### Acceptance interval

Csf—Erythrocytes; num.c.	± 20 %
Other components	± 40 %

Acceptance intervals are set as expert judgment based on what is clinically relevant.

### Results and comments

Most of the participants' results originate from Sysmex XN, therefore the overall mean value is influenced by this.

### Csf—Erythrocytes; num.c

There is fine agreement between the participants' results in both levels.

### Csf-Nucleated cells; num.c.

As expected, a decrease is seen from analysis day 23.01. to analysis day 24.01.

Despite this, there are agreement between the participants' results and the mean on each of the analysis days lies within the acceptance intervals. Note that there are few results from analysis day 24.01.

	Sample A [*10 <sup>6</sup> /L]	Sample B [*10 <sup>6</sup> /L]
<b>Acceptance</b>	15,05 – 35,11	13,54 – 31,60
<b>Mean 23.01.2024</b> n= 51	26	23
<b>Mean 24.01.2024</b> n= 3	18	18

### Csf-Leukocytes; num.c.

As expected, a decrease is seen from analysis day 23.01. to analysis day 24.01.

Note that there are few results from analysis day 24.01.

	Sample A [*10 <sup>6</sup> /L]	Sample B [*10 <sup>6</sup> /L]
<b>Acceptance</b>	14,88 – 34,73	13,59 – 31,71
<b>Mean 23.01.2024</b> n= 45	25	23
<b>Mean 24.01.2024</b> n= 2	12	11

### Other components

This time the spreads (CV%) between the results is in the same level as usual.

Yours sincerely

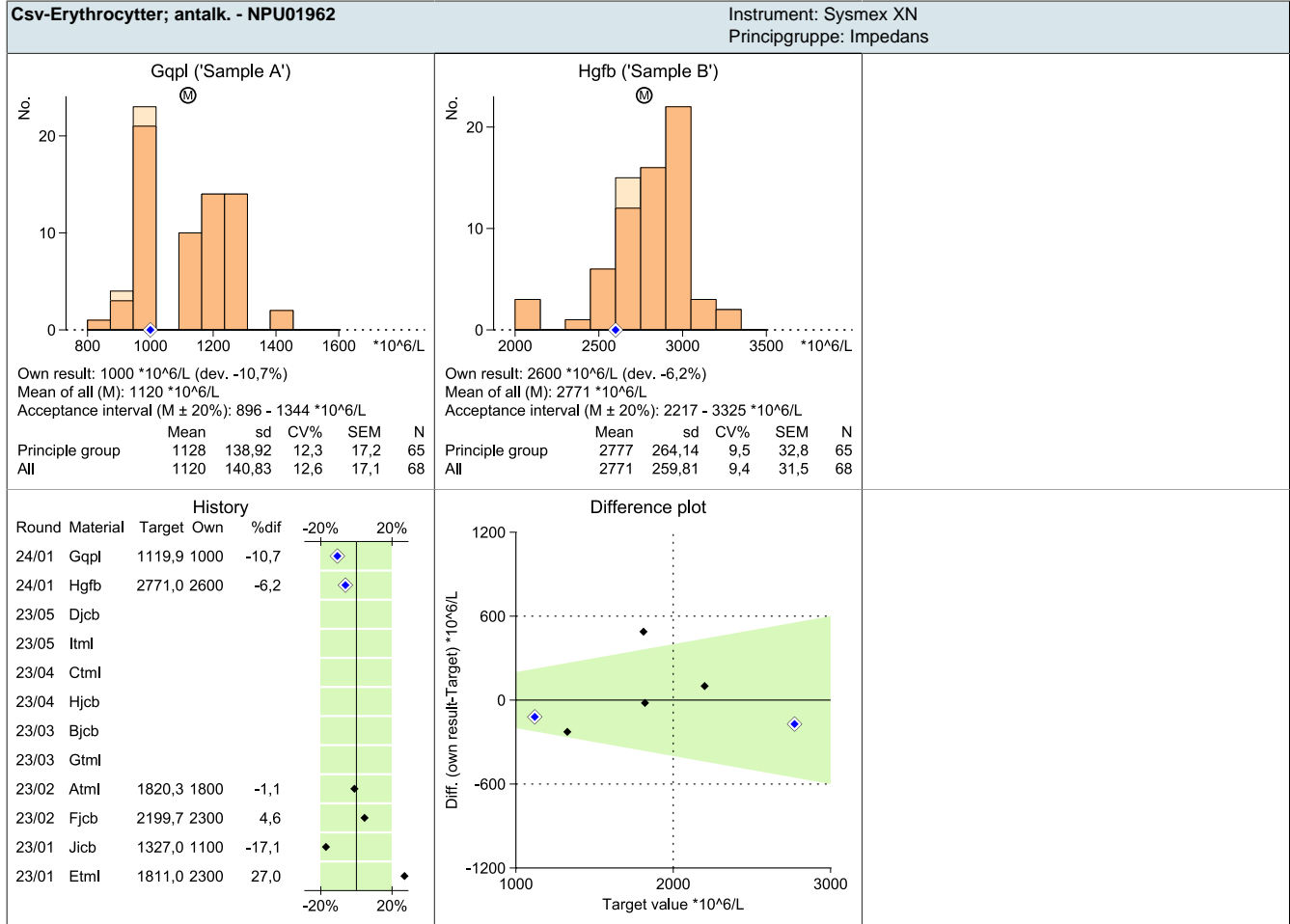
**Karin Heidemann and Morten Pedersen**

## Components, Danish names vs. English and Swedish names in the histograms

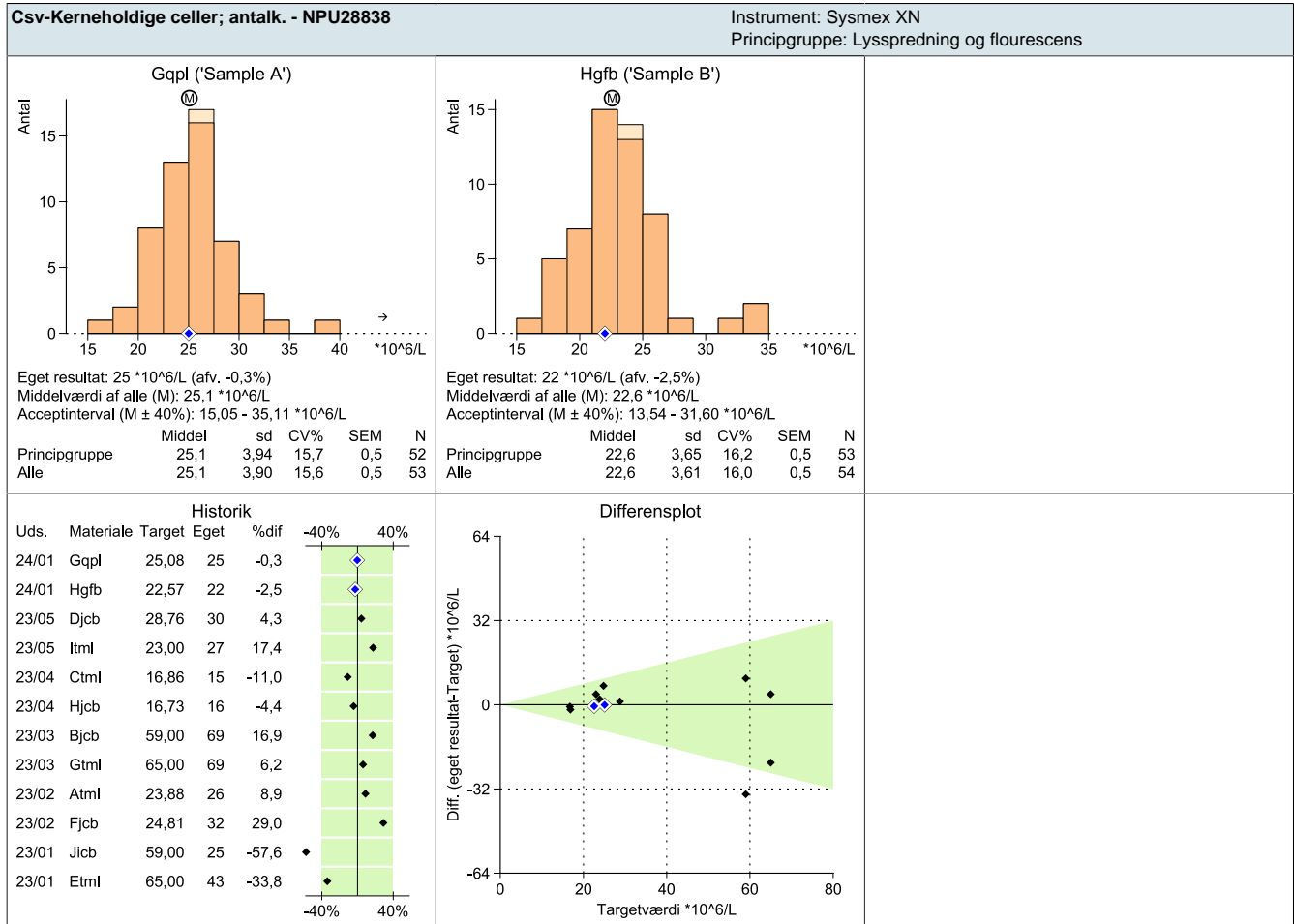
Danish name	English name	Swedish name	Unit
Csv-Erythrocytter; antalk.	Csf-Erythrocytes; num.c.	Csv—Erythrocyter;ant konc	10 <sup>6</sup> /L
Csv-Kerneholdige celler; antalk.	Csf-Nucleated cells; num.c.	Csv—Kärnförande celler;ant konc	10 <sup>6</sup> /L
Csv-Leukocyttter; antalk.	Csf-Leukocytes; num.c.	Csv—Leukocyter;ant konc	10 <sup>6</sup> /L
Csv-Leukocyttter (mononukl.); antalk.	Csf-Leukocytes(mononucl.); num.c.	Csv—Leukocyter(mono);ant konc	10 <sup>6</sup> /L
Csv-Leukocyttter (polynukl.); antalk.	Csf-Leukocytes(polynucl.); num.c.	Csv—Leukocyter(poly);ant konc	10 <sup>6</sup> /L
Lkcs(Csv)-Leukocyttter (mononukl.); antalfr.	Lkcs(Csf)-Leukocytes(mononucl.); num.fr.	Lkc(Csv)—Leukocyter(mono);ant fr	%
Lkcs(Csv)-Leukocyttter (polynukl.);antalfr.	Lkcs(Csf)—Leukocytes(polynucl.); num.fr.	Lkc(Csv)—Leukocyter(poly);ant fr	%

Component	Mean	Sd	CV	sem	N	Outliers
<b>Csv-Erythrocytter; antalk. Sample 'Gqpl'</b>						
Alle	1120	140,8	12,58	17,08	68	0
GloCyte	907				1	0
Mikroskopi	972	16,26	1,674	11,5	2	0
Sysmex XN	1129	136,4	12,09	17,19	63	0
Sysmex XR	1100	283	25,7	200	2	0
<b>Csv-Erythrocytter; antalk. Sample 'Hgfb'</b>						
Alle	2771	260	9,38	31,5	68	0
GloCyte	2600				1	0
Mikroskopi	2664	51,6	1,938	36,5	2	0
Sysmex XN	2776	266	9,58	33,5	63	0
Sysmex XR	2800	283	10,1	200	2	0
<b>Csv-Kerneholdige celler; antalk. Sample 'Gqpl'</b>						
Alle	25	3,9	15,56	0,536	53	1
GloCyte	25				1	0
Sysmex XN	25	4,01	16,01	0,568	50	1
Sysmex XR	25	1,414	5,66	1	2	0
<b>Csv-Kerneholdige celler; antalk. Sample 'Hgfb'</b>						
Alle	23	3,61	16	0,491	54	0
GloCyte	23				1	0
Sysmex XN	23	3,7	16,44	0,518	51	0
Sysmex XR	24	1,414	5,89	1	2	0
<b>Csv-Leukocyttter (mononukl.); antalk. Sample 'Gqpl'</b>						
Alle	8	2,29	27,9	0,293	61	1
Sysmex XN	8	2,27	27,9	0,296	59	1
Sysmex XR	10	2,83	28,3	2	2	0
<b>Csv-Leukocyttter (mononukl.); antalk. Sample 'Hgfb'</b>						
Alle	8	2,38	31,3	0,304	61	1
Sysmex XN	8	2,37	31,5	0,309	59	1
Sysmex XR	9	2,83	31,4	2	2	0
<b>Csv-Leukocyttter (polynukl.); antalk. Sample 'Gqpl'</b>						
Alle	16	2,69	16,81	0,344	61	1
Sysmex XN	16	2,67	16,66	0,348	59	1
Sysmex XR	15	4,24	28,3	3	2	0
<b>Csv-Leukocyttter (polynukl.); antalk. Sample 'Hgfb'</b>						
Alle	14,4	2,85	19,81	0,365	61	1
Sysmex XN	14,4	2,89	20,1	0,377	59	1
Sysmex XR	15	1,414	9,43	1	2	0
<b>Csv-Leukocyttter; antalk. Sample 'Gqpl'</b>						
Alle	25	2,9	11,67	0,427	46	1
Sysmex XN	25	2,9	11,67	0,427	46	1
<b>Csv-Leukocyttter; antalk. Sample 'Hgfb'</b>						
Alle	23	3,29	14,51	0,485	46	1
Sysmex XN	23	3,29	14,51	0,485	46	1
<b>Lkcs(Csv)-Leukocyttter (mononukl.); antalfr. Sample 'Gqpl'</b>						
Alle	34	7,89	23,1	1,189	44	0
Sysmex XE	27	4,53	16,64	3,2	2	0
Sysmex XN	34	7,67	22,4	1,213	40	0
Sysmex XP	40	13,65	33,8	9,65	2	0
<b>Lkcs(Csv)-Leukocyttter (mononukl.); antalfr. Sample 'Hgfb'</b>						
Alle	34	8,06	23,7	1,229	43	1
Sysmex XE	33	14,21	43,4	10,05	2	0
Sysmex XN	34	7,96	23,5	1,274	39	1
Sysmex XP	37	9,62	25,9	6,8	2	0
<b>Lkcs(Csv)-Leukocyttter (polynukl.); antalfr. Sample 'Gqpl'</b>						
Alle	66	7,89	11,98	1,189	44	0
Sysmex XN	66	7,66	11,58	1,182	42	0
Sysmex XR	60	13,65	22,9	9,65	2	0
<b>Lkcs(Csv)-Leukocyttter (polynukl.); antalfr. Sample 'Hgfb'</b>						
Alle	66	8,28	12,57	1,263	43	1
Sysmex XN	66	8,08	12,2	1,262	41	1
Sysmex XR	60	13,86	23,2	9,8	2	0

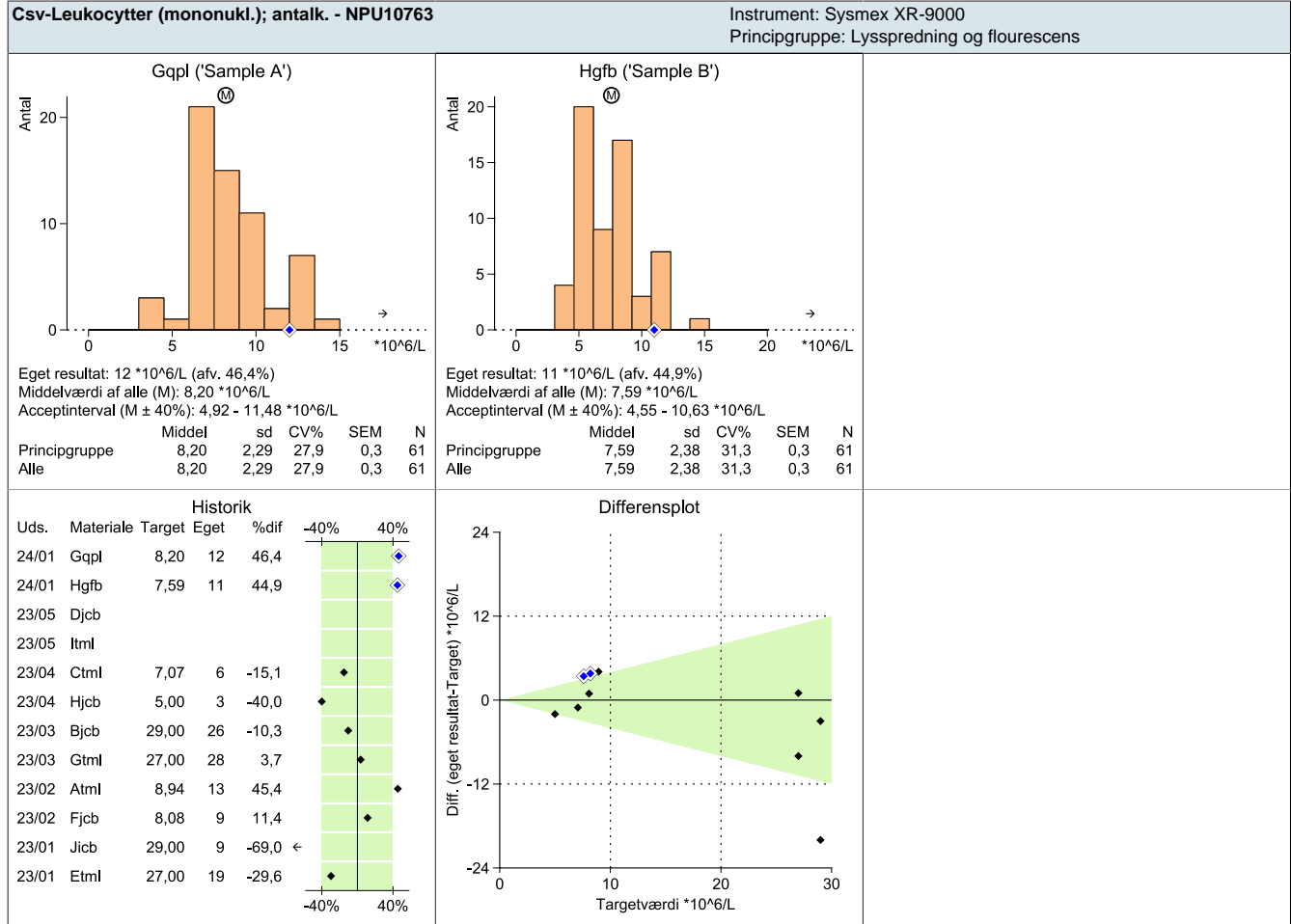
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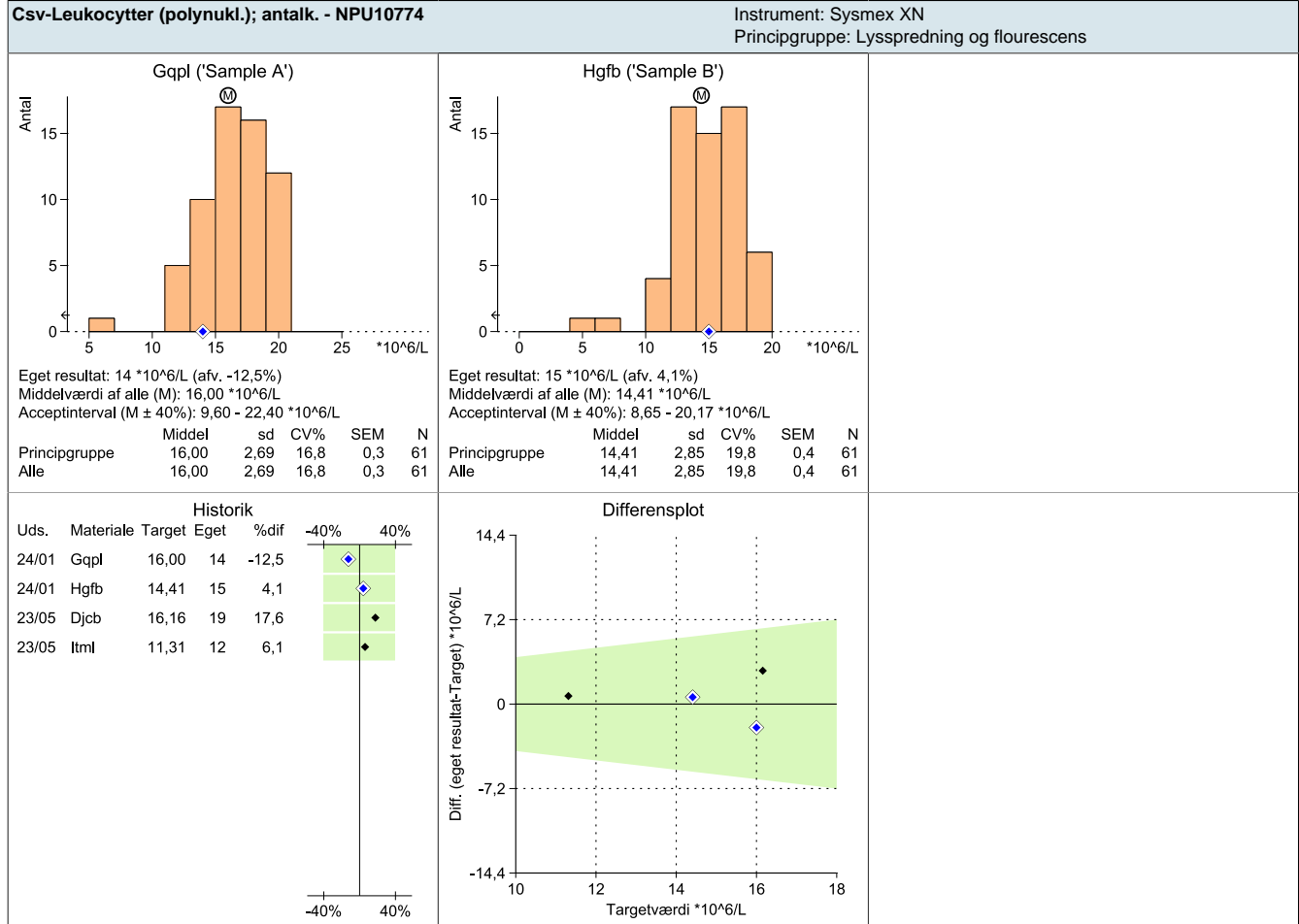
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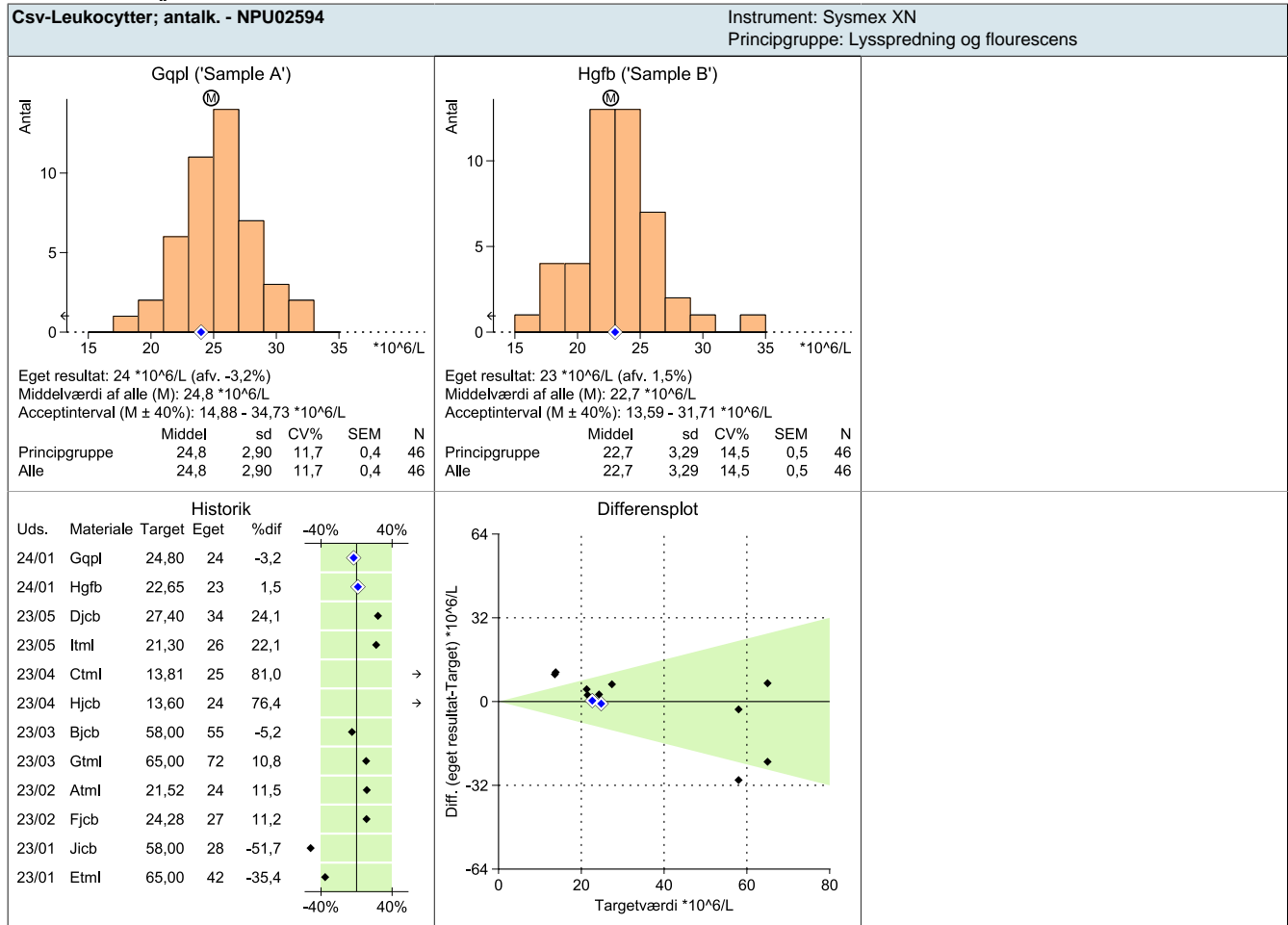
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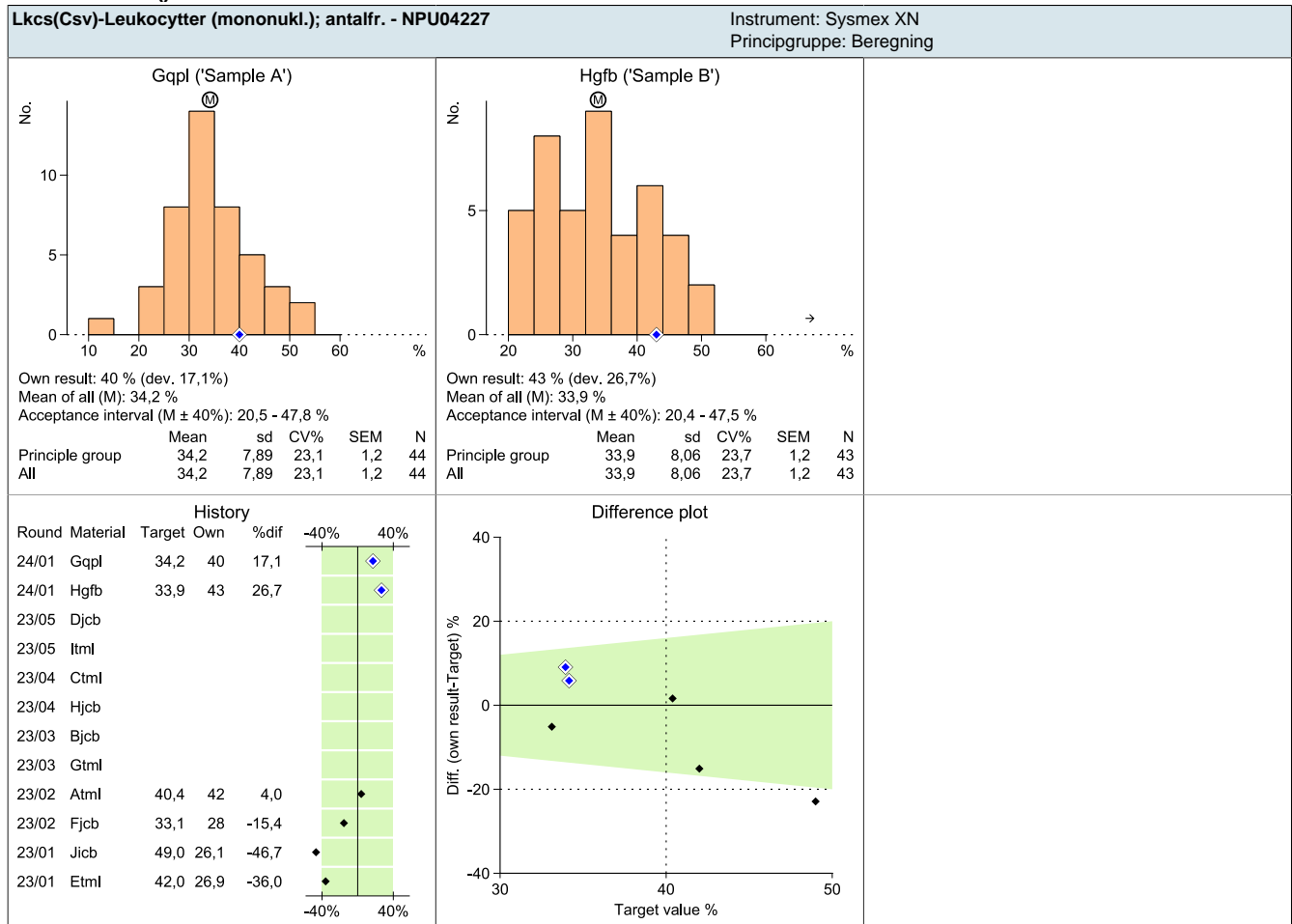
**Metodesæt 1 ( )**



**Metodesæt 2 ( )**



**Metodesæt 2 ( )**



Metodesæt 2 ()

