
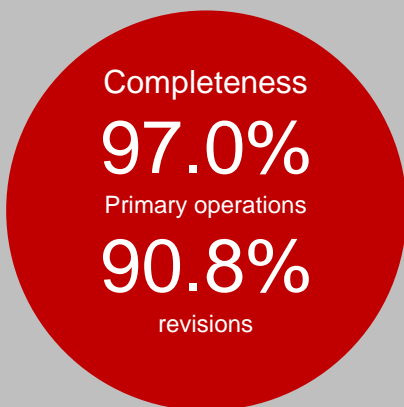


## Hip prostheses

 Primary operations Revisions	Reported 1987-2023	Reported in 2023
	<b>249,514</b>	<b>10,812</b>
	<b>38,851</b>	<b>1,222</b>



<b>9</b>	Published Papers	
<b>0</b>	PhDs	
<b>16</b>	Podium Presentations	

### Research

#### Patient activity after hip replacement

We found that patients with a hip replacement were more physically active than an age-matched control group.



### Find us:

- <https://helse-bergen.no/nrl>
- <https://www.facebook.com/leddregisteret>
- [Nasjonalt servicemiljø for medisinske kvalitetsregistre](#)

## Results and activities

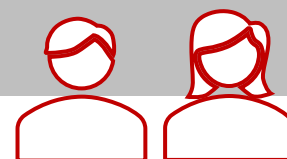
### Quality indicators

- 95.9% 10-years survival
- 95% well documented cups
- 100% well documented stems
- 96.8 % wear-resistand joint surfaces
- 87.9% proportion of cemented stems in women >75 years



### ePROM

electronic patient reported data



**13,171**  
pre-op ePROM

**48**  
Participating hospitals

**14,499**  
post-op ePROM

## Knee prostheses



Primary operations  
Revisions

Registered 1987-2023

**126,975**  
**11,094**

Registered in 2023

**8,653**  
**647**



9

Published Papers



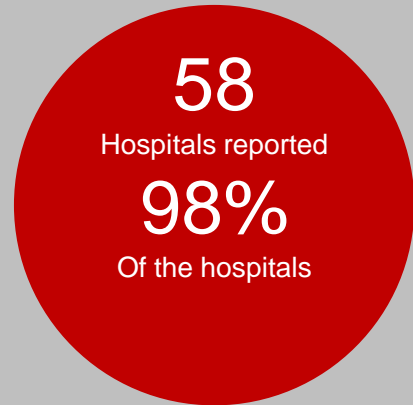
0

PhDs



14

Podium Presentations



## Research

### ALBA-study for knee prostheses

Shall we use antibiotic loaded cement? An R-RCT including more than 9,000 operations – per May 2023 more than 3,300 included.



### Find us:

<https://helse-bergen.no/nrl>  
<https://www.facebook.com/leddregisteret>  
[Nasjonalt servicemiljø for medisinske kvalitetsregistre](#)

## Results and activities

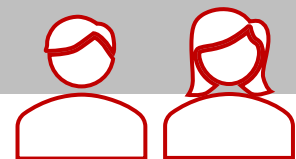
### Quality indicators

- 87.3% well documented prostheses
- 84.3 % electronic registered in 2023
- 97.9 % non-revised standard patients at 2 years
- 96.5 % non-revised standard patients at 10 years



### ePROM

electronic patient reported data



**11,925**  
pre-op  
ePROM

**44**

participating  
hospitals

**10,992**  
post-op  
ePROM

## Shoulder prostheses



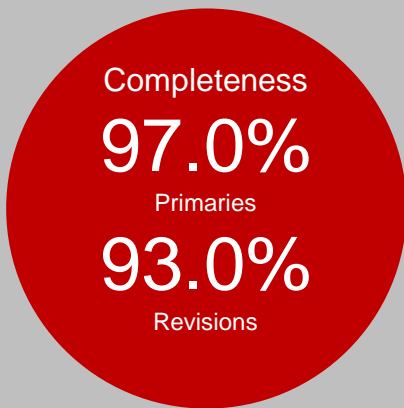
Primary operations  
Revisions

Reported 1987-2023

**13,584**  
**1,253**

Reported in 2023

**1,217**  
**89**



**2** Published papers

**0** Phds

**1** Podium Presentations



### Research

Focus on results for reverse prostheses with a stem, which increased most in use (75% of primary operations in 2023).



#### Find us:

<https://helse-bergen.no/nrl>  
<https://www.facebook.com/leddregisteret>  
Nasjonalt servicemiljø for medisinske kvalitetsregistre

## Initiated activities

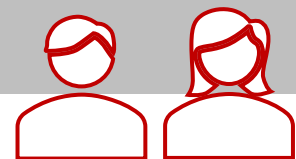
### Important findings and projects

- 90.4% survival at 10 years (all prostheses)
- The most common reason for revision is infection and dislocation
- 24% are operated due to acute fracture
- 98% receives antibiotics prophylaxis by the guidelines



### ePROM

Electronic patient reported data



**584**  
pre-op ePROM

**19**  
participating hospitals

**797**  
post-op ePROM

35.7% fill out pre-op PROM

## Reporting



Primary operations  
Reoperations

Reported  
2005-2023

**154,442**  
**16,575**

Reported  
In 2023

**8,143**  
**807**

**45**

Reporting  
hospitals

**100%**

Of hospitals

**56%**

Electronic reporting  
of operations

Completeness

**85.6%**

Of primary osteosyntheses

**91.6%**

of primary hemi arthroplasties

**93.8%**

of primary total  
arthroplasties



**PROM**

Patient reported data

Time after  
operation

Reported  
2005-2023

Reported  
In 2023

4 months

**61,846**

**2,732**

12 months

**52,122**

**2,916**

36 months

**32,811**

**2,005**

## Results and activities



### Quality indicators

**99 %**

Prosthesis used in patients  
> 70 years with displaced  
femoral neck fracture

**97 %**

Cemented hemiprostheses  
in patients > 70 years

**95 %**

Non-reoperated hip  
fractures within 1 year

**92 %**

30-days survival

**51 %**

Operated within 24 hours

**84 %**

Operated within 48 hours



### Quality projects

- Reduce rate of infection after hemi arthroplasty
- Increase proportion cemented hemi arthroplasties

**6**

Published  
papers



**1**

Finished  
PhD



**4**

Podium  
presentations



Find us:

<https://www.helse-bergen.no/nrl>

<https://www.facebook.com/leddregisteret>

[Nasjonalt servicemiljø for medisinske kvalitetsregistre](#)



## Reporting



Primary reconstruction

Revision reconstructions

Reported  
2004-2023

**34,683**

**3,455**

Reported  
In 2023

**2,178**

**193**

**87.4%**

Completeness of  
primary  
reconstructions

4

Published  
Papers



0

PhDs



3

Podium  
Presentations



**49**

Hospitals reporting

**100%**

Of hospitals



**Quality  
project**

Investigate if the quality of reporting has changed since all hospitals now report electronic to the register.

### Find us:

<https://www.helse-bergen.no/nrl#nasjonalt-korsbandregister>

<https://www.kvalitetsregistre.no/register/muskel-og-skjelett/nasjonalt-korsbandregister>



## Initiated activities

### Machine learning

The Knee Ligament Register has participated in an international research project where we used data from the register to predict the result of the treatment by using a machine learning algorithm.

### PROM



Time after  
operation

Reported  
2005-2023

Reported  
in 2023

2 years

**18,077**

**876 (61%)**

5 years

**13,566**

**857 (47%)**

10 years

**8,422**

**748 (44%)**

## Norwegian Paediatric Hip Register



	Reported in 2010-2023	Reported in 2023
Hip dysplasia (DDH)	<b>1301</b>	<b>52</b>
Perthes disease	<b>557</b>	<b>20</b>
Slipped capital femoral epiphysis (SCFE)	<b>486</b>	<b>46</b>
Open procedure/arthroscopy	<b>713</b>	<b>184</b>

**11/13**  
Hospitals reported to  
the register

**85%**  
compliance

**100%**  
Electronic

**DDH**  
**85.7%**

**Perthes**  
**92.9%**

**Completeness 2022**

**SCFE**  
**77.4%**

**Arthroscopy**  
**78.5%**

**ePROM** 2010-2023

DDH	Perthes	SCFE	Arthroscopy
<b>106</b>	<b>76</b>	<b>102</b>	<b>219</b>

**Find us:**  
<https://www.helse-bergen.no/nrl>  
<https://www.facebook.com/leddregisteret>  
 Nasjonalt servicemiljø for medisinske kvalitetsregistre

## Results and activities



### Quality indicator

- 0.08% DDH Proportion late-diagnosed hip dysplasia
- 38.5% DDH Proportion newborn ultrasound screened
- 35% Perthes Duration of symptoms ≤ 2 months
- 76.9% Perthes Operation children > 6 years Caterall III/IV
- 52.2% SCFE Duration of symptoms ≤ 2 months
- 90% SCFE Implantat allowing further growth

### Quality project

We have identified that the reason for the delay from symptoms until the diagnose is established for Perthes and SCFE is that the patients wait before contacting the healthcare service, and that the primary care takes too long before referring them further. Hospitals are quick to assess the referrals and offer consultation and treatment.