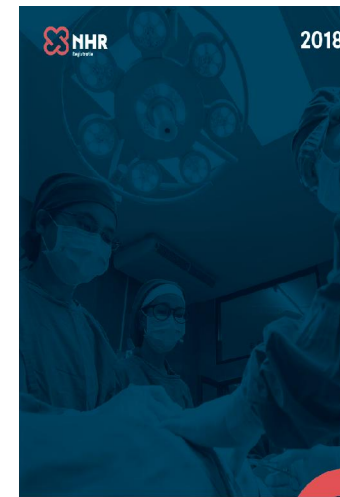


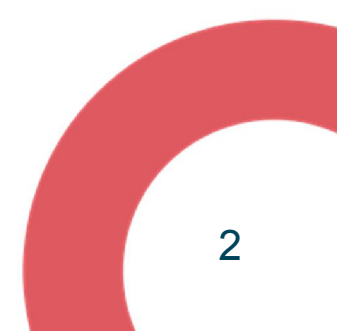
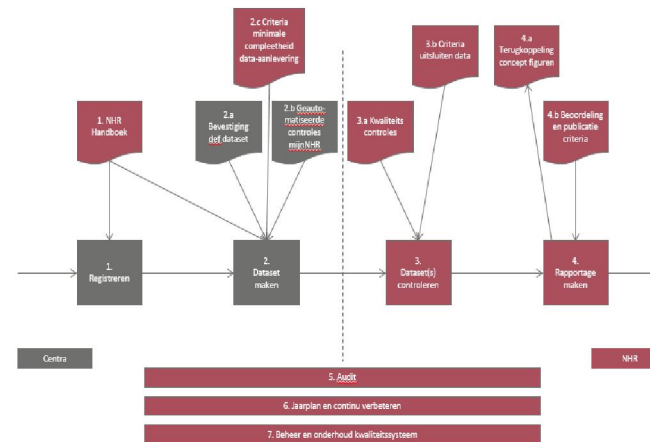
Dennis van Veghel
Directeur-bestuurder



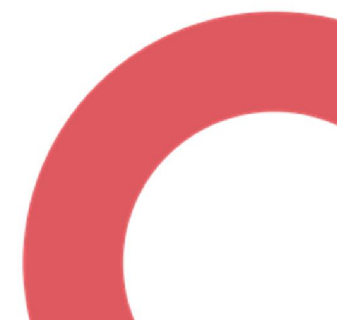
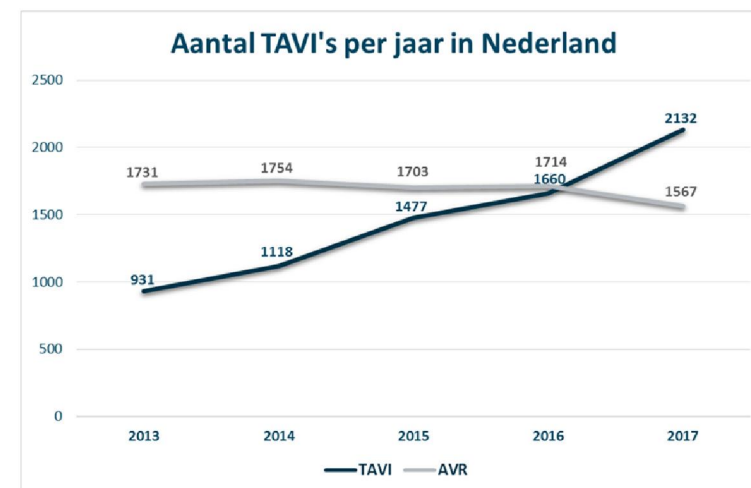


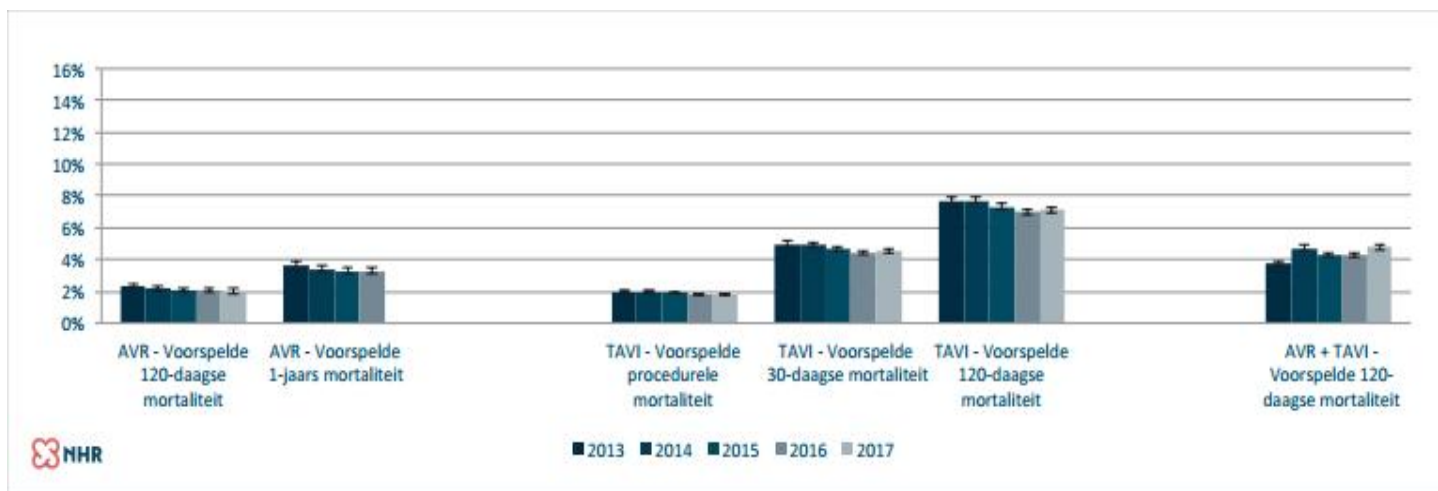
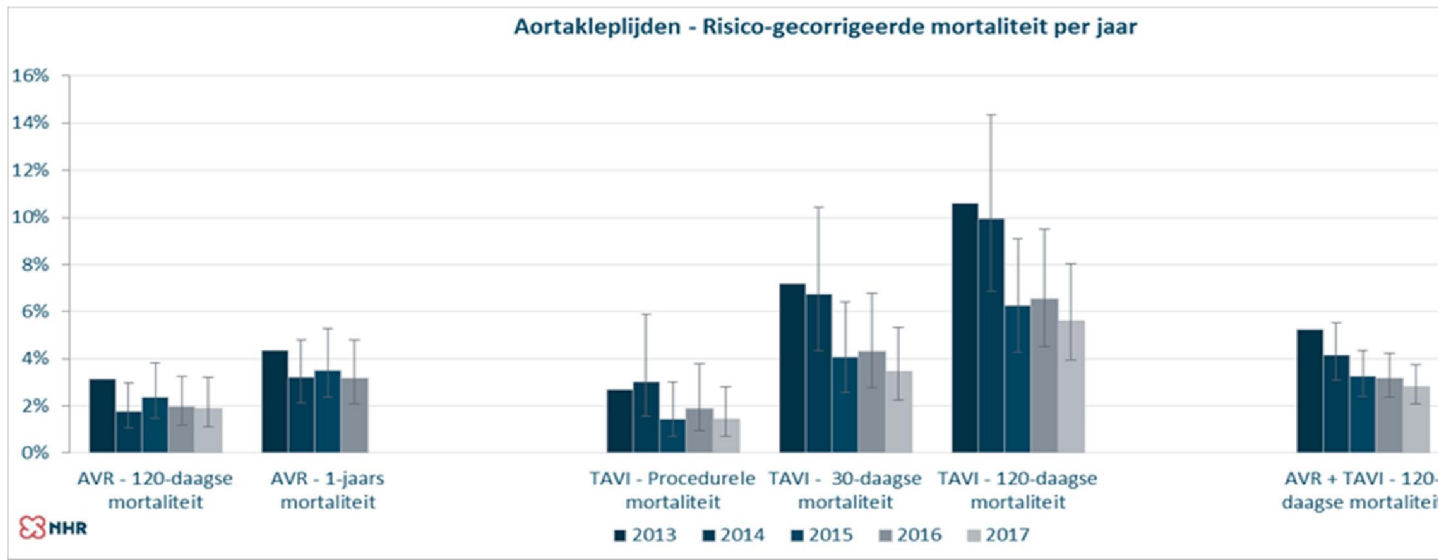
- Registration committees
 - Cardiac surgery
 - THI
 - PCI
 - PVI
 - PM/ICD

- Collaboration with NVVC and NVT



Aantal geregistreerde interventies per jaar						
Medische conditie	Interventie	2015	2016		2017	
		aantal	aantal	% verschil tov 2015	aantal	% verschil tov 2016
Coronairlijden	CABG	7546	7291	-3,4%	7261	-0,4%
	PCI	40159	41079	2,3%	40453	-1,5%
Aortakleplijden	AVR	1703	1714	0,6%	1567	-8,6%
	TAVI	1477	1660	12,4%	2132	28,4%
Gecombineerd aortakleplijden en coronairlijden	AVR+CABG	1050	981	-6,6%	916	-6,6%
Atriumfibrilleren	Kathetherablatie	3649	3970	8,8%	4262	7,4%
	Chirurgische ablatie	410	414	1,0%	369	-10,9%
Mitraliskleplijden	Mitralisklepchirurgie	696	660	-5,2%	607	-8,0%
	Overig	251	270	7,6%	343	27,0%
Overige condities	ICD	5571	5796	4,0%	6102	5,3%
	Pacemaker	12286	12474	1,5%	12541	0,5%
	Overige ablaties	289	330	14,2%	376	13,9%
	Overige OHO	4185	4439	6,1%	4452	0,3%
Totaal		79272	81078	2,3%	81381	0,4%



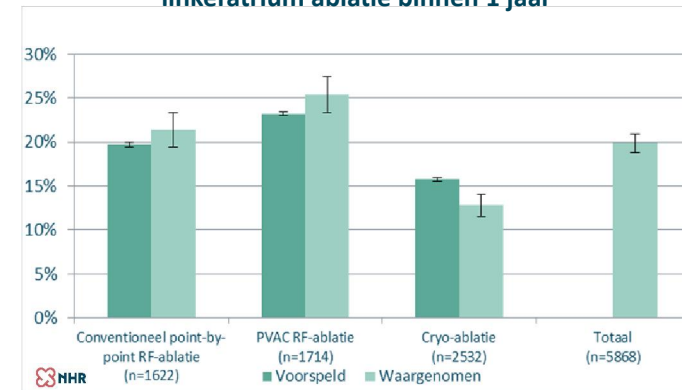




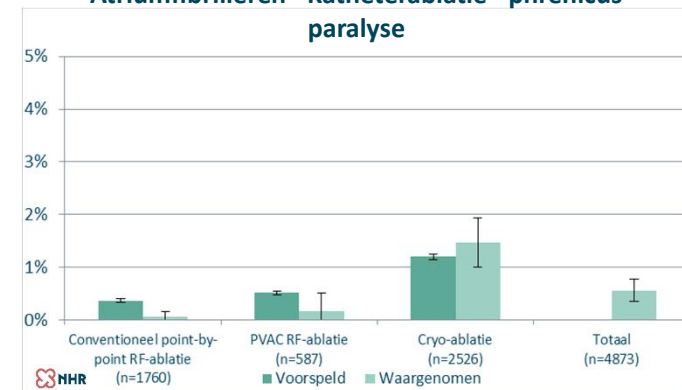
- Scientific board
- Research proposals
- NHR publications

- *Additional data-analysis*
- *Support projects*
 - *Initiated by the registry committees*
 - *Roll out of improvement projects*
 - *Projects initiated by hospitals*
- *New registries*
 - *Atrial fibrillation*
 - *Heart failure*
 - *Acute coronary syndrome*
- *Value based purchasing pilot*

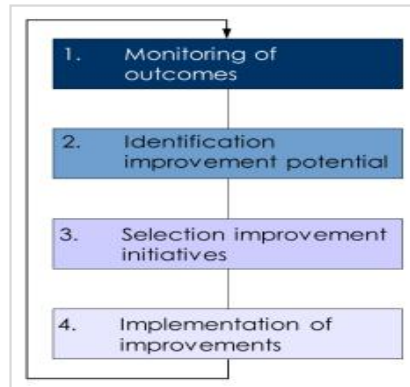
Atriumfibrilleren - Katheterablatie - herhaalde linkeratrium ablatie binnen 1 jaar



Atriumfibrilleren - Katheterablatie - phrenicus paralyse



$$\text{Patient Value} = \frac{\text{Health Outcomes}}{\text{Cost}}$$



- Focus is on monitoring of outcomes (Step 1)
- No systematic approach as yet exists for Steps 2-4.
- Physicians explicitly mentioned they struggle with this.

- Strategy: quality is mentioned, no explicit goals, no embedding of outcomes in M&C cycle
- Structure: no explicit structure for PDCA cycle
- Shared values: culture is open to discuss outcomes, but not multidisciplinary
- Style: leadership exists, but mostly not on the formal positions
- Systems: New EHR, complexity, also with follow up
- Staff: No explicit time reserved in physician groups
- Skills: statistical skills are present, education in VBHC, lack of methodological knowledge

Pilot “value based purchasing”

1. Focus of all stakeholders involved

Embed outcome improvement in P&C cycle of hospitals and health insurance companies

2. Connect quality improvement with financial incentives

Improvement in outcomes should lead to better in stead of worse payments



Current pilot model

2015	Realisatie	Voorspeld	Tarief	75% significant	Nacalculatie bedrag	Bedrag	95% significant	Bedrag
Aantal patiënten per jaar	1500							
Ex post kwaliteitsincentive voor uitkomsten die niet leiden tot separate declaraties								
30-daagse mortaliteit	4,00%	5,00%	€ 15.000	Ja	(5%-4%)*€15.000	€ 150	Nee	€ 0
1-jaars mortaliteit	4,50%	6,00%	€ 15.000	Ja	(6%-4,5%)*€15.000	€ 225	Ja	€ 225
Kwaliteit van leven								
Ex post nacalculatie met separate declaraties voor voorspelde uitkomsten								
Myocardinfarct binnen 30 dagen*	1,50%	0,90%	€ 5.000	Nee	(1,9%-1,5%)*€5.000	€ -30	Nee	€ -30
TVR binnen een jaar	7,00%	7,50%	€ 0	Nee		€ 0	Nee	€ 0
Acute CABG	0,20%	0,30%	€ 12.000	Nee		€ 0	Nee	€ 0
Ex post nacalculatie voor belangrijkste koordrijvers obv voorspelde niveau								
Mogelijk vanaf 2019								
Totaal berekening ex post								
Totaal bedrag per patiënt						€ 345		€ 195
Totaal bedrag						€ 517.500		€ 292.500
Limiet ex-post nacalculatie						€ 25.000		€ 25.000
Uit te keren bonus/malus						€ 25.000		€ 25.000

Improvement projects











- 1) Self initiated projects
- 2) NHR roll out projects
- 3) Successful projects from other centers
- 4) Projects based on additional data-analysis by the NHR
- 5) Shared Value chain discussion

Payment model

- 1) Risk-selection
 - Statistical methods
 - Initial conditions
 - Measure impact
 - Exclude patients
- 2) Data quality
- 3) Weight of indicators
- 4) Designing into a bundled payment model



Improvement projects

	Peri operatief verbruik bloedproducten CABG
	Postdilatie na PCI
	Contrastdosering bij nierinsufficiëntie
	
	A TVR is a TVR is a TVR
	Haga Braincare Strategy
	AGE-MDO (AGE = Antonius Geriatrische Evaluatie)
	Implementatie interventie zorgpaden HartNet Noord-Nederland
	Meer patiënten on target LDL
	Contrastdosering bij nierinsufficiëntie

Payment model



Improvement projects

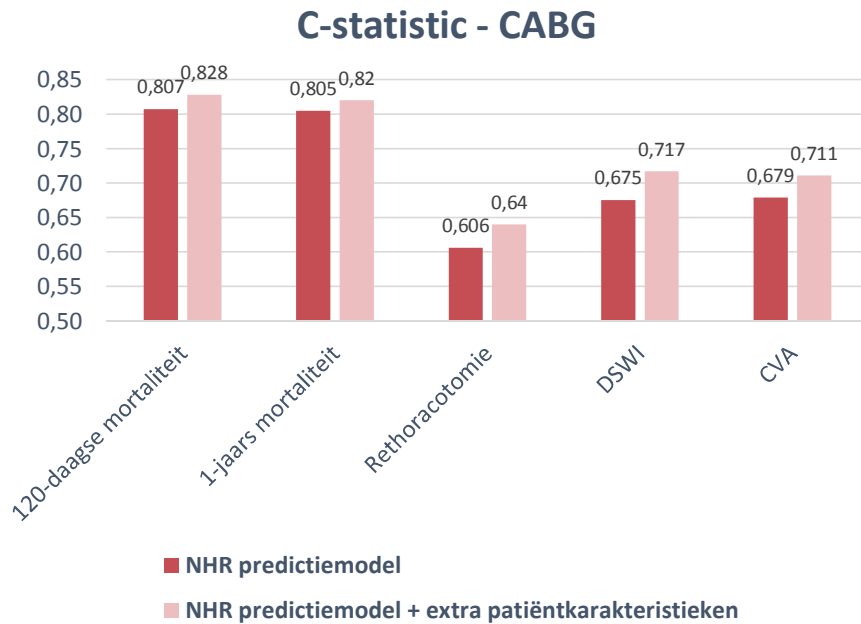
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Initial conditions



<p>120-days & 1-year mortality</p> <p>NHR predictionmodel +</p> <ul style="list-style-type: none"> • Extracardiac arterial vesselpathology • Neurological dysfunction • Critical preoperative situation • Systolic arteria pulmonalis pressure • BMI • SES
<p>Rethoracotomy</p> <p>NHR predictionmodel +</p> <ul style="list-style-type: none"> • Mobility problems • Instable angina pectoris • SES
<p>DSWI</p> <p>NHR predictionmodel +</p> <ul style="list-style-type: none"> • Extracardiac arterial vesselpathology • Instable angina pectoris • BMI
<p>CVA</p> <p>NHR predictionmodel +</p> <ul style="list-style-type: none"> • Extracardiac arterial vesselpathology • CCS-class IV angina • Critical preoperative situation

Improvement projects

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Measure impact

Questionnaire

- More attention for outcomes in physicians-meetings y 56% / n 18%
- More attention for outcomes in boardroom y 54% / n 12%
- More attention for quality in my hospital y 48% / n 21%

Trends in initial conditions

Improvement projects

- 1) Self initiated projects
- 2) NHR roll out projects
- 3) Successful projects from other centers
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Diagnostics

Preparation

Intervention

After care

Follow up

 Clinical outcomes related to additional payments

 Clinical outcomes not related to additional payments





Diagnostics

Preparation

Intervention

After care

Follow up

■ Clinical outcomes related to additional payments

■ Clinical outcomes not related to additional payments

Care delivery activities connected to patient relevant proces indicators or intermediate outcomes

■ "Standard of care" activities



Care delivery activities, connected to patient relevant process indicators or intermediate outcomes

Readmissions

Admissions to the emergency department

Length of stay in the intensive care unit after CABG

Treatment-setting of the PCI





Diagnostics

Preparation

Intervention

After care

Follow up

■ Clinical outcomes related to additional payments

■ Clinical outcomes not related to additional payments

Care delivery activities connected to patient relevant proces indicators or intermediate outcomes

■ "Standard of care" activities



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