

PPS

Point Prevalence Survey of Healthcare-associated Infections and Antimicrobial Use in European Acute Care Hospitals

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Definities

HAI

- 48u na opname
- oordeel clinicus
- SSI na operatie tot 6, 12, 24m
- infectie na ambulante zorg
- infectie in woon- en zorgcentra



AU

- inclusie van ATC groepen
- therapie tussen 0u – 0u
- therapie tussen 8u-8u
- profylaxe 24u vóór survey
- profylaxe vanaf 8u dag voor survey



verschillende definities



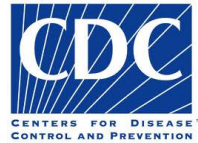
vergelijking niet mogelijk!

Definitie



Definitie

HAI



NEO-KISS



AU



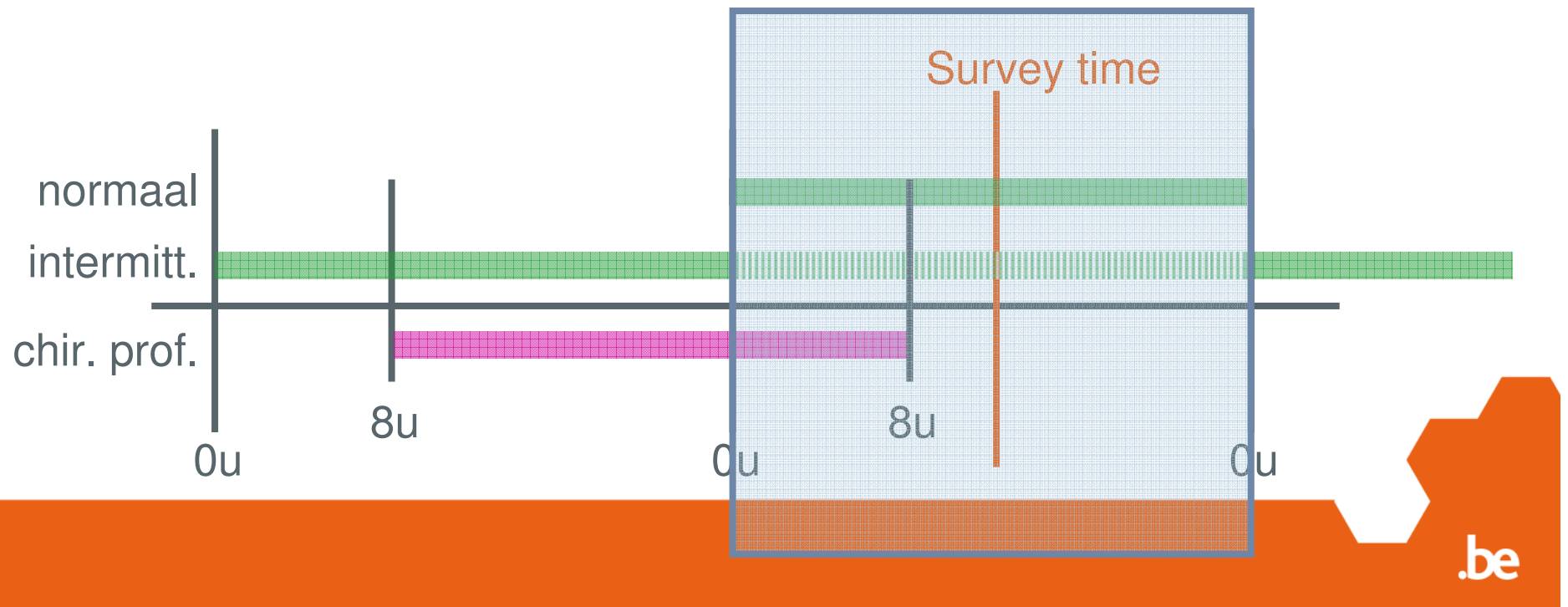
Definitie Antimicrobial Use (AU)

Curatief + medische (niet-chirurgische) profylaxe:

- A. De **dag (0u-23u59)** van gegevensverzameling
- B. **Intermittente** toediening: dag van survey zit in schema

Chirurgische profylaxe:

- C. Tussen 8am dag vóór survey - 8am dag survey



PPS definitie *Active HAI*

A. Active

- A. Symptomen dag van survey
- B. Symptomen voorbij maar nog *antimicrobial therapy*

B. HAI

- A. Alle infecties met start symptomen in AZH \geq **dag 3**
- B. **< dag 3** indien:
 - Transfer** uit ander AZH (max 2d extramuraal)
 - CDIF** bij patiënt die in laatste 28 d uit AZH is ontslagen
 - Recent ***relevant device***
 - PN: intubatie (laatste 48u)
 - BSI: PVC/CVC (laatste 48u)
 - UTI: UC (laatste 7d)
 - SSI** infecties bij patiënt
 - * laatste 30 d relevante HK
 - * laatste 365d relevant implant



European Prevalence Survey of Healthcare-Associated Infections and Antimicrobial Use

Form A. Patient-based data (standard protocol)

Patient data (to collect for all patients)

Hospital code

Ward name (abbr.)/Unit Id Ward specialty

Survey date: ___ / ___ / ___ (dd/mm/yyyy)

Patient Counter: _____

Age in years: ___ yrs; Age if < 1 year old: ___ months

Sex: M F **Date of hospital admission:** ___ / ___ / ___ (dd/mm/yyyy)

Consultant/Patient Specialty:

Surgery since admission:

☐ No surgery ☐ Minimal invasive/non-NHSN surgery

☐ NHSN surgery ☐ Unknown

McCabe score: ☐ Non-fatal disease

☐ Ultimately fatal disease

☐ Rapidly fatal disease

☐ Unknown

Central vascular catheter: ☐ No ☐ Yes ☐ Unk

Peripheral vascular catheter: ☐ No ☐ Yes ☐ Unk

Urinary catheter: ☐ No ☐ Yes ☐ Unk

Intubation: ☐ No ☐ Yes ☐ Unk

Patient receives **antimicrobial(s)**⁽¹⁾: ☐ No ☐ Yes **IF YES**

Patient has **active HAI**⁽²⁾: ☐ No ☐ Yes

(1) since 00:00 on the day of the survey, except for surgical prophylaxis 24h before time of the survey; if yes, fill antimicrobial use data; (2) [infection with onset ≥ Day 3, OR SSI criteria met (surgery in previous 30d/1yr), OR discharged from acute care hospital <48h ago, OR CDI and discharged from acute care hospital < 28 days ago OR onset < Day 3 after invasive device/procedure on D1 or D2] AND [HAI case criteria met on survey day OR patient is receiving (any) treatment for HAI AND case criteria are met between D1 of treatment and survey day]; if yes, fill HAI data

Antimicrobial (generic or brand name)	Route	Indication	Diagnosis (site)	Reason in notes

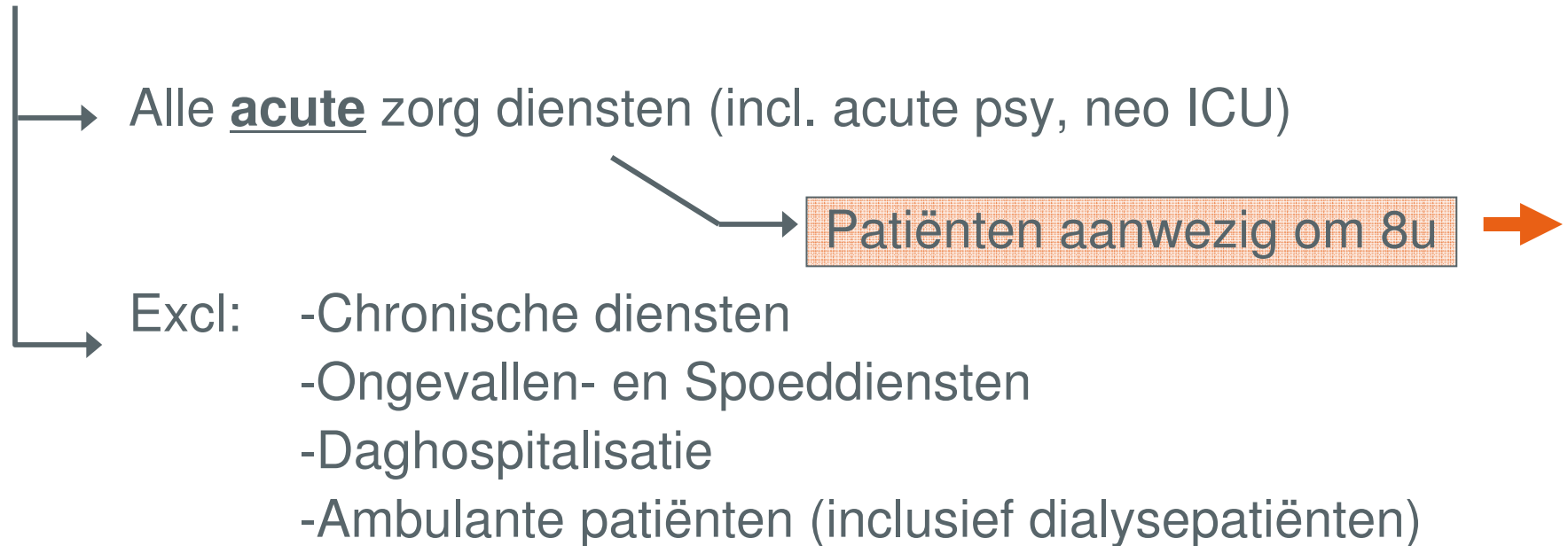
Route: P: parenteral, O: oral, R: rectal, I: inhalation; **Indication:** CI - LI - HI: treatment intention for community-acquired (CI), long/intermediate-term care-acquired (LI) or acute hospital-acquired infection (HI); surgical prophylaxis: S1: single dose, S2: one day, S3: >1day; M: medical prophylaxis; O: other; U: Unknown; **Diagnosis:** see site list, only for treatment intention **Reason in notes:** Y/N

	HAI 1	HAI 2	HAI 3			
Case definition code						
Relevant device in situ before onset ⁽³⁾	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown			
Present at admission	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No			
Date of onset ⁽⁴⁾	___ / ___ / ___	___ / ___ / ___	___ / ___ / ___			
Origin of infection	<input type="radio"/> current hospital <input type="radio"/> other hospital <input type="radio"/> other origin/ unk	<input type="radio"/> current hospital <input type="radio"/> other hospital <input type="radio"/> other origin/ unk	<input type="radio"/> current hospital <input type="radio"/> other hospital <input type="radio"/> other origin/ unk			
If BSI: source ⁽⁵⁾						
	MO-code	R ⁽⁶⁾	MO-code	R ⁽⁶⁾	MO-code	R ⁽⁶⁾
Microorganism 1						
Microorganism 2						
Microorganism 3						

(3) relevant device use (intubation for PN, CVC for BSI, urinary catheter for UTI) in 48 hours before onset of infection (even intermittent use), 7 days for UTI; (4) Only for infections not present/active at admission (dd/mm/yyyy); (5) C-CVC, C-PER, S-PUL, S-UTI, S-DIG, S-SSI, S-SST, S-OTH, UO, UNK; (6) AMR marker 0, 1, 2 or 9, see table

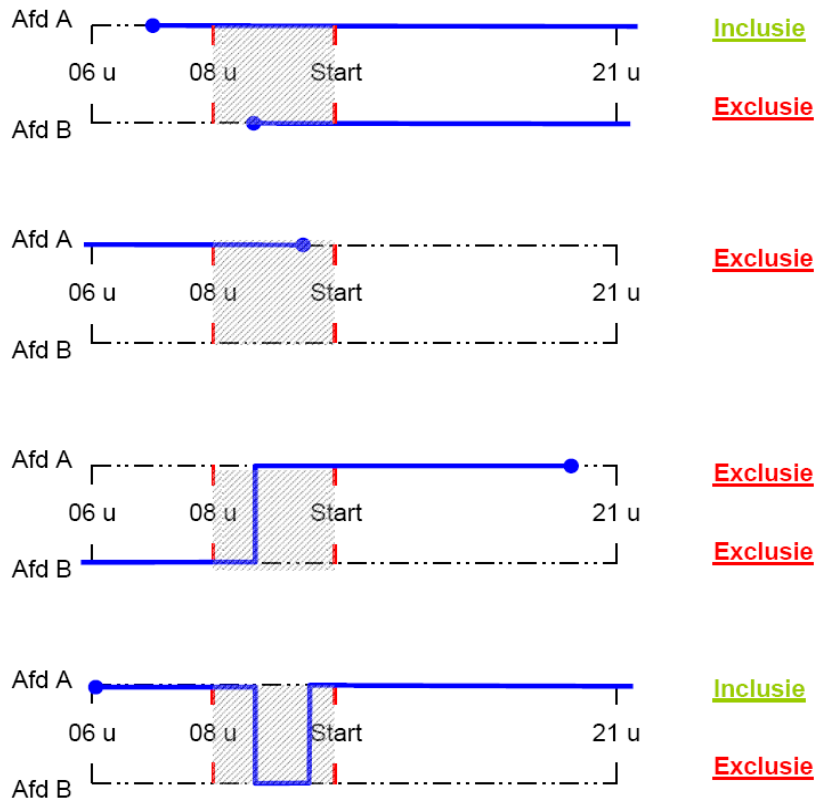
Wie wordt geïncludeerd?

Acute ziekenhuizen



NB: Attributie bed telt: Chronische patiënt in acuut bed op acute dienst meetellen

Wie wordt geïnccludeerd op acute dienst?



Alle patiënten die zijn:

- **opgenomen** op de dienst om **8 am**
- **niet ontslagen** van de dienst op moment van survey

Grote lijnen praktische werkwijze

1. Lijst met alle diensten in ZH
2. Bepaal de participerende diensten = **alle** acute zorg diensten
3. Overleg met dienst → datum voor elke dienst
 - 1 dag per dienst
 - Alle diensten binnen 3 weken
 - Dinsdag-woensdag-donderdag is ideaal
4. Aankomen op zaal → maak lijst van te includeren patienten
5. Elke geincludeerde patient → formulier A
 - Verzamel gegevens bv tijdens de zaaltoer
 - Tijdens de verzameling:
 - bekijk elk medisch dossier
 - andere bronnen
 - overleg met dienst personeel
 - alleen **NU** beschikbaar

Documentatie

- Protocol
- Codeboek
- Formulieren “*patient data*” en “*hospital data*”

European Prevalence Survey of Healthcare-Associated Infections and Antimicrobial Use
Form A. Patient-based data (standard protocol)

Patient data (to collect for all patients)

Hospital code: Ward name (abbr.): Ward specialty:
 Survey dates: / / (dd/mm/yyyy)
 Patient Counter:
 Age in years: yrs; Age if < 1 year old: months
 Sex: M F Date of hospital admission: / / (dd/mm/yyyy)
 Consultant/Patient Specialty:
 Surgery since admission:
☐ No surgery ☐ Minimal invasive/non-NHSN surgery
☐ NHSN surgery ☐ Unknown
 McCabe score:
☐ Non-fatal disease
☐ Ultimately fatal disease
☐ Rapidly fatal disease
☐ Unknown
 Central vascular catheter: ☐ No ☐ Yes ☐ Unk
 Peripheral vascular catheter: ☐ No ☐ Yes ☐ Unk
 Urinary catheter: ☐ No ☐ Yes ☐ Unk
 Intubation: ☐ No ☐ Yes ☐ Unk
 Patient receives antimicrobial(s): ☐ No ☐ Yes
 Patient has active HAI: ☐ No ☐ Yes

Antimicrobial (generic or brand name)

Antimicrobial (generic or brand name)	Dose	Indication	Duration (days)	Route

Case definition code

	HAI 1	HAI 2	HAI 3
Relevant device in situ before onset	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Present at admission	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Date of onset ⁽¹⁾	<input type="text"/> / <input type="text"/> / <input type="text"/> (dd/mm/yyyy)	<input type="text"/> / <input type="text"/> / <input type="text"/> (dd/mm/yyyy)	<input type="text"/> / <input type="text"/> / <input type="text"/> (dd/mm/yyyy)
Origin of infection	<input type="radio"/> Current hospital <input type="radio"/> Other hospital <input type="radio"/> Other origin unk	<input type="radio"/> Current hospital <input type="radio"/> Other hospital <input type="radio"/> Other origin unk	<input type="radio"/> Current hospital <input type="radio"/> Other hospital <input type="radio"/> Other origin unk
HAI source ⁽²⁾	<input type="radio"/> MO code <input type="radio"/> Rn	<input type="radio"/> MO code <input type="radio"/> Rn	<input type="radio"/> MO code <input type="radio"/> Rn
Microorganism 1	<input type="text"/>	<input type="text"/>	<input type="text"/>
Microorganism 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
Microorganism 3	<input type="text"/>	<input type="text"/>	<input type="text"/>

(1) Since 01-01-2010 on the day of the survey, except for surgical prophylaxis 24h before onset of the survey; (2) Yes, if antimicrobial use since 01-01-2010 with onset < 2 days; OR SSI criteria met (surgery in previous 30 days); OR discharged from acute care hospital < 48 hrs; OR CDI and discharged from acute care hospital < 48 days ago; OR onset < 2 days after invasive device introduction on 01-01-2010; OR CDI cases not on survey day OR patient transferring from treatment for HAI AND data others are not. Selection of treatment and survey day? If yes, 1st HAI date.

European Prevalence Survey of Healthcare-Associated Infections and Antimicrobial Use
Form H. Hospital data

Hospital code:

Survey dates: From / / (dd/mm/yyyy) To: / / (dd/mm/yyyy)

Hospital size (total number of beds):
 Number of acute care beds:
 Number of ICU beds:

Exclusion of wards for PPS? ☐ No
☐ Yes, please specify which ward types were excluded:

Total number of beds in included wards:
 Total number of patients included in PPS:

Hospital Type: ☐ Primary
☐ Secondary
☐ Tertiary
☐ Specialized, please specify

Specialization type:

Below: To be filled/checked by national coordinator

Is the hospital part of a national representative sample of hospitals? ☐ No ☐ Yes ☐ Unknown

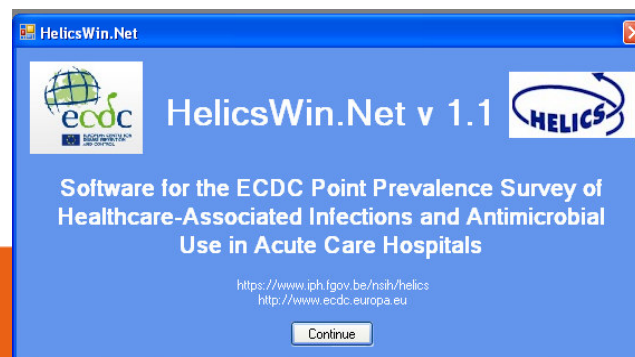
	Number	Year data	Incl. wards/Total (1)
Number of discharges/admissions in year	<input type="text"/>	<input type="text"/>	Incl. Tot
Number of patient days in year	<input type="text"/>	<input type="text"/>	Incl. Tot
Alcoholic hand rub consumption (liters/year)	<input type="text"/>	<input type="text"/>	Incl. Tot
Number of single patient rooms in hospital	<input type="text"/>	<input type="text"/>	Incl. Tot
Number of patient rooms in hospital	<input type="text"/>	<input type="text"/>	Incl. Tot
Number of FTE infection control nurses	<input type="text"/>	<input type="text"/>	Incl. Tot
Number of FTE infection control doctors	<input type="text"/>	<input type="text"/>	Incl. Tot

(1) Data were collected for included wards only (line, = recommended) or for the total hospital (Tot); if all wards were included in PPS (Incl-Tot), mark "Inc".

Data apply to: ☐ Single hospital or hospital site
☐ Hospital "trust" or merger
 PPS Protocol: ☐ Standard ☐ Light


Comments/observations:

- Software: HELICSwin.NET



Unit based protocol - patient based protocol

Unit protocol: geen “patiënt risico factoren”

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Patient Counter: ____
Age in years: ____ yrs; Age if < 1 year old: ____ months
Sex: M F Date of hospital admission: ____ / ____ / ____
Consultant/Patient Specialty:

Surgery since admission:
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McCabe score: ☐ Non-fatal disease
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Central vascular catheter: ☐ No ☐ Yes ☐ Unk
Peripheral vascular catheter: ☐ No ☐ Yes ☐ Unk
Urinary catheter: ☐ No ☐ Yes ☐ Unk
Intubation: ☐ No ☐ Yes ☐ Unk

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Present at admission	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No			
Date of onset⁽⁴⁾	____ / ____ / ____	____ / ____ / ____	____ / ____ / ____			
Origin of infection	<input type="radio"/> current hospital <input type="radio"/> other hospital <input type="radio"/> other origin/ unk	<input type="radio"/> current hospital <input type="radio"/> other hospital <input type="radio"/> other origin/ unk	<input type="radio"/> current hospital <input type="radio"/> other hospital <input type="radio"/> other origin/ unk			
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Unit based protocol - patient based protocol

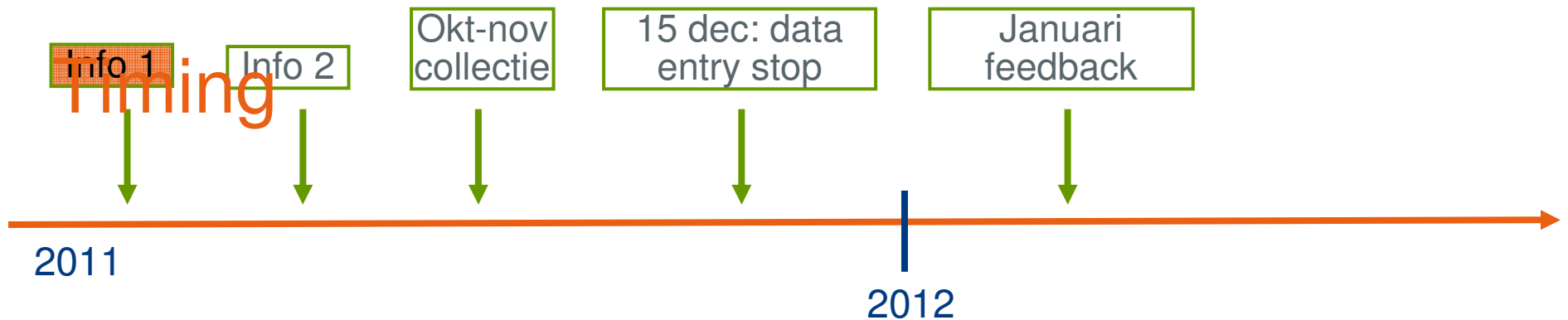
→ Evenveel werk bij collectie, **iets minder werk** bij data entry

→ Veel **minder interessante feedback**

- Unit protocol: standaardisatie patient/consultant specialty
- Patient protocol: standaardisatie
 - Patient/consultant specialty
 - McCabe score (risico score voor mortaliteit)
 - CVC
 - Intubatie
 - Urinaire catheter
 - Geslacht en Leeftijd
 - Heelkunde sinds opname
 - Duur van verblijf

McCabe Score

- **Rapidly fatal < 1 year**
 - Eindstadium kanker
 - Hartfalen met EF<25%
- **Ultimately fatal 1 – 5 years**
 - Chronische leukemie, myelomas, lymphomas, metastatische kanker, vergevorderd nierfalen
 - Motor neuron disease, MS non-responsive to treatment
 - Alzheimers / dementie
- **Non fatal > 5 years**
 -



Bijeenkomst: 08 sept 2011

Tweede bijeenkomst: 03 okt 2011

Gegevens periode: 1 okt-30 november 2011 (3 weken)

Gegevens bij WIV binnen: ten laatste 15 dec 2011

Feedback beschikbaar: ten laatste 31 jan 2012

Eerste EU rapport: 2012

Elke 2 jaar een PPS

Percentage overeenstemming definitie



Neemt patient **AB**?

Gemiddeld **84** % correct

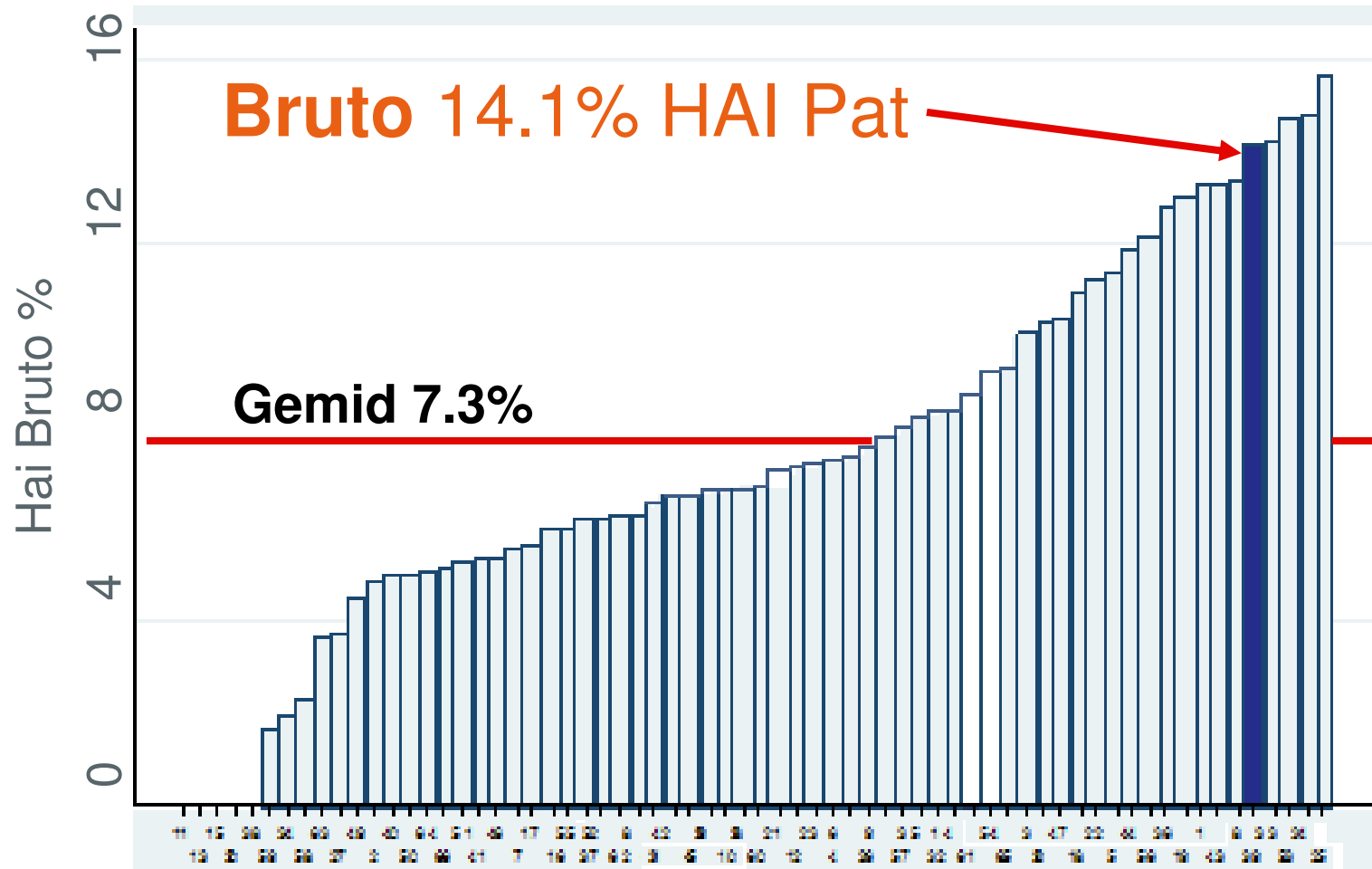
Heeft patient **HAI**?

Gemiddeld **65** % correct

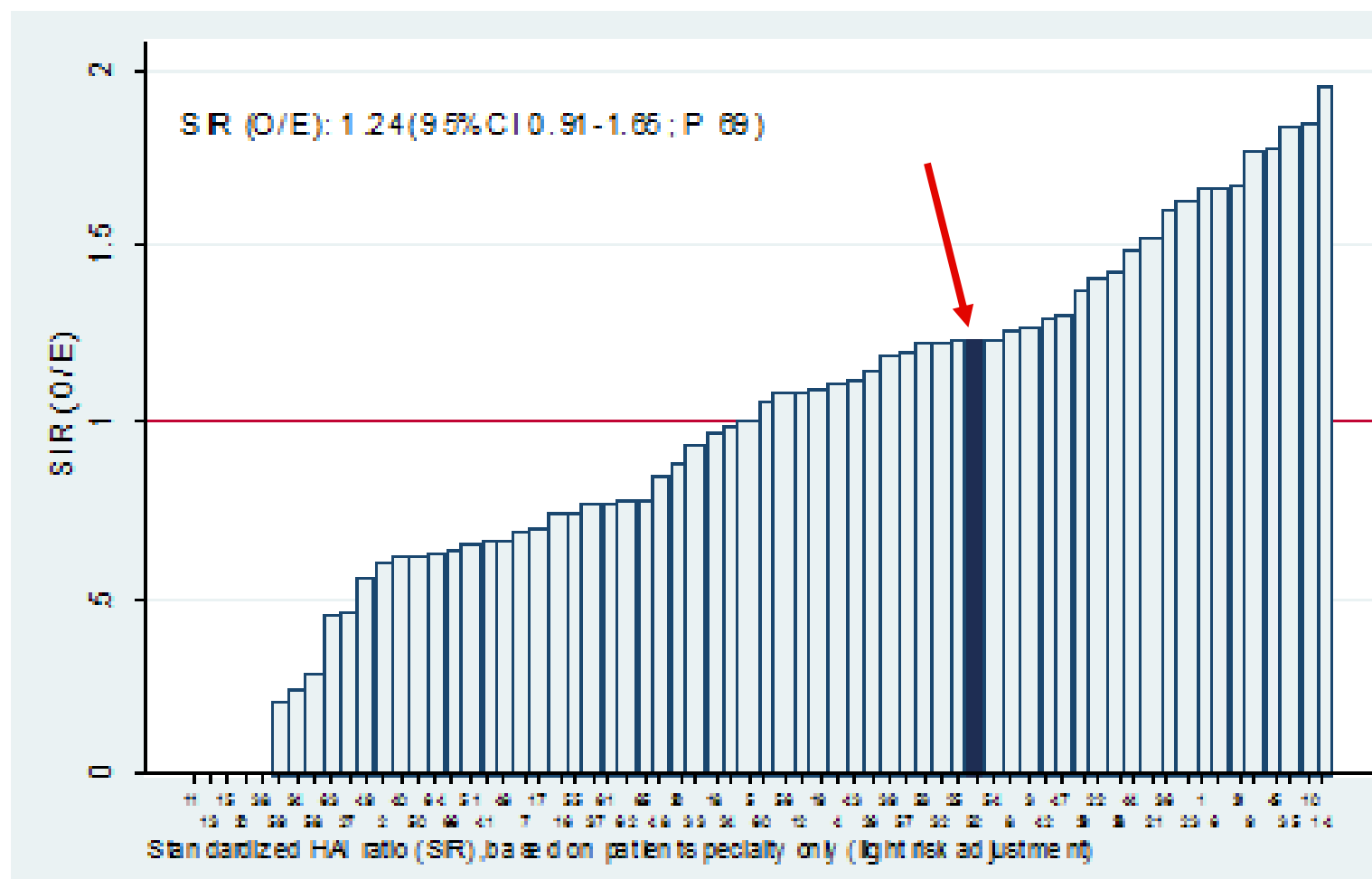
Resultaten niet beschikbaar? → niet wachten

Twee verschillende codelijsten voor ziekte (HAI vs AB)

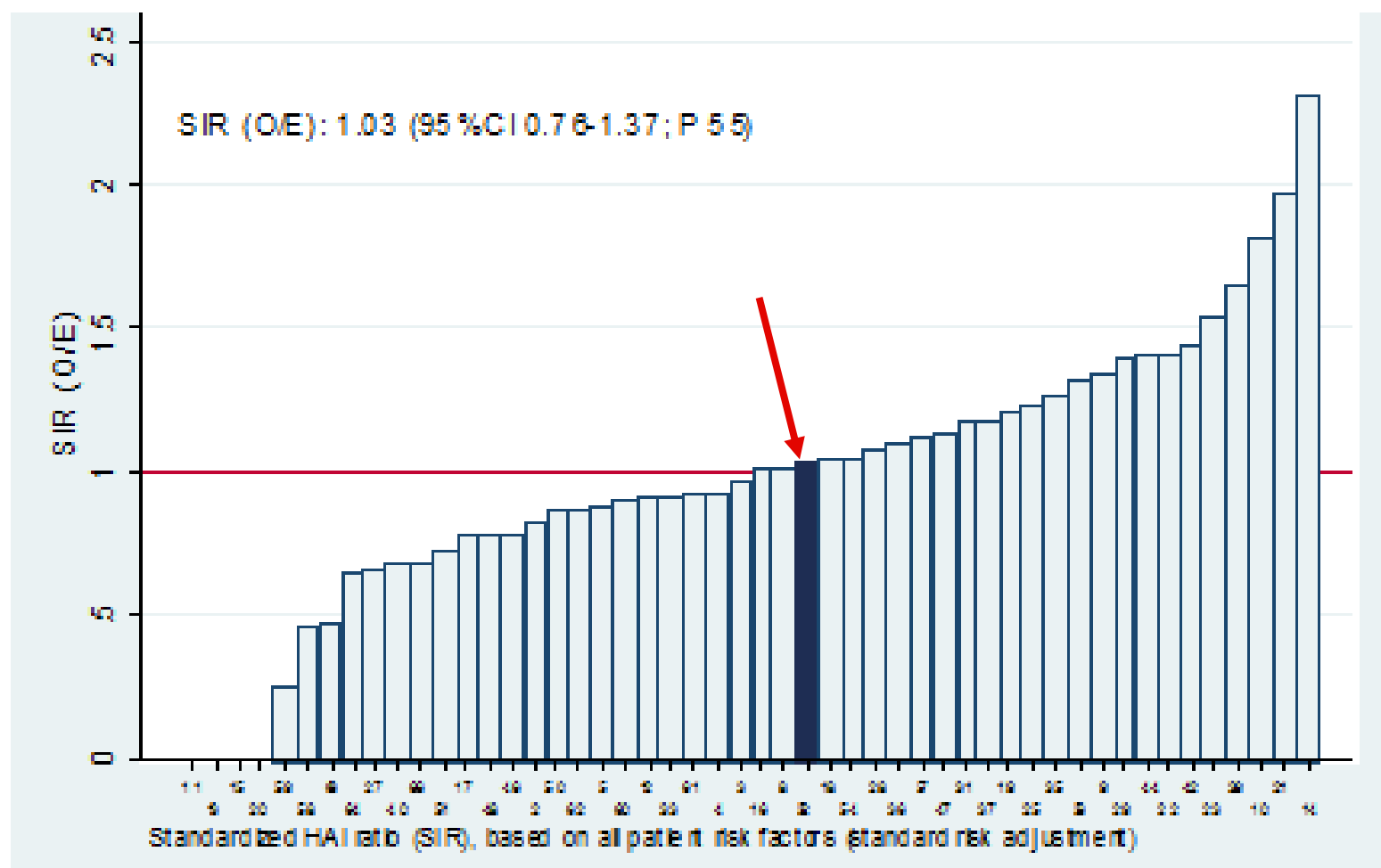
Voordeel van Standaardisatie



“Unit based protocol” standaardisatie



“Patient based protocol” standaardisatie



Einde

Met dank aan: Anne Ingenbleek
Boudewijn Catry
Carl Suetens
Evelyne Van Gastel
Herman Goossens
Michiel Costers
Natacha Viseur
Norbert Eggermont
Pilotziekenhuizen
Sebastian Laurent
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