

## A comparison of three classifications in Belgium

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### Background

- National and international institutions use different surveillance definitions for central line-associated bloodstream infection (CLABSI) which hinders comparison of findings.
- In Belgium, CLABSI registration in hospitals is legally required since 2014.
- For Belgian data collected since 2013, we assessed the proportion of cases corresponding to three different CLABSI classifications and its impact on CLABSI incidence and trends.

### Methods

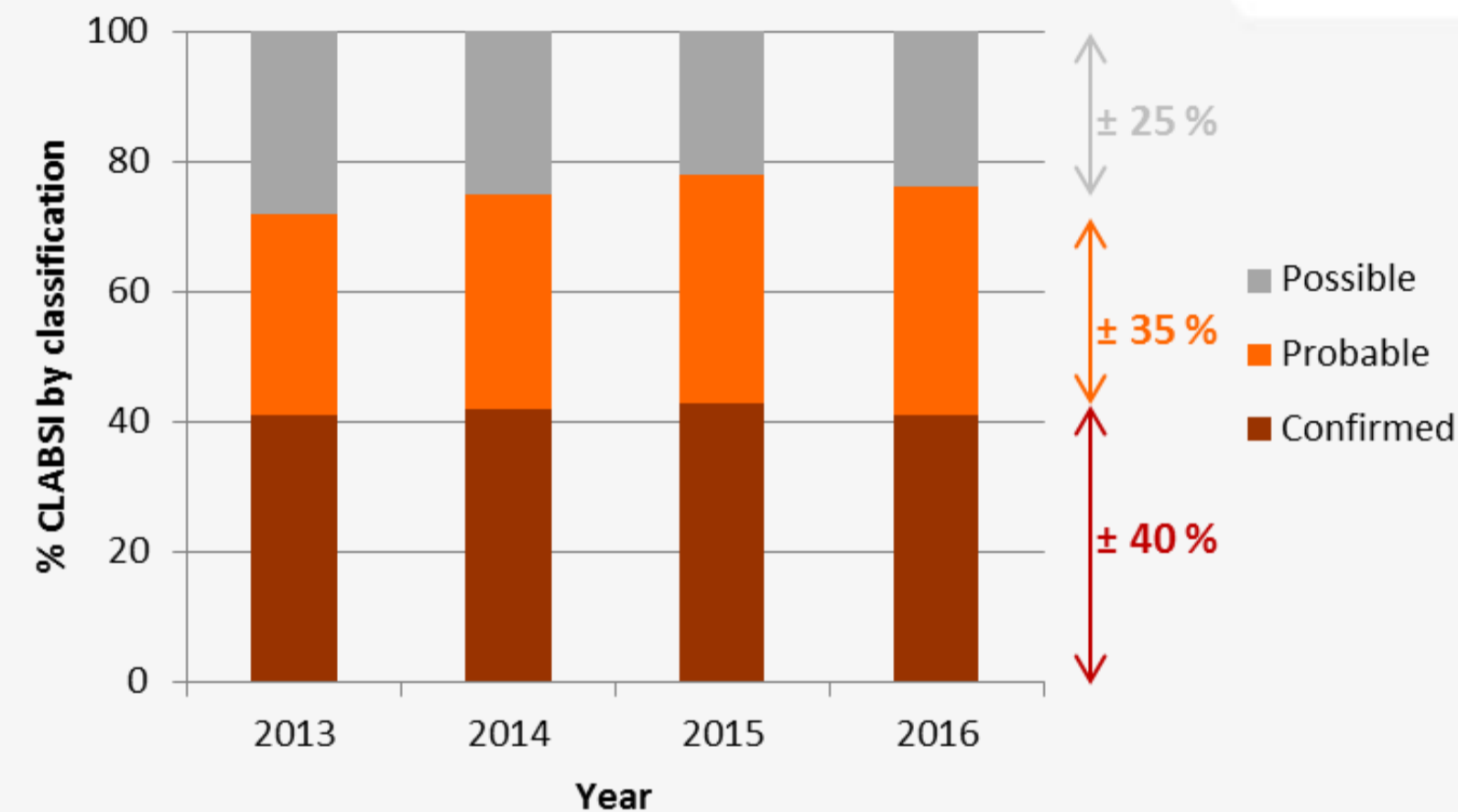
CLABSI definition in the Belgian bloodstream infection surveillance:

A laboratory-confirmed bloodstream infection (LCBI) occurring  $\geq 2$  days after hospital admission.

Depending on surveillance information we define three CLABSI classifications:

- Confirmed CLABSI:** LCBI with clinical suspicion that a central line (CL) is the cause of LCBI and the association between LCBI and CL is microbiologically confirmed (same microorganism in blood culture and on CL),
- Probable CLABSI:** LCBI with clinical suspicion that a CL is the cause of LCBI but no microbiological confirmation,
- Possible CLABSI:** LCBI not secondary to an infection at another body site but CL present within the two days prior to the LCBI.

CLABSI proportion in Belgian hospitals according to classification, 2013-2016



CLABSI proportion, number and mean incidence per 10,000 bed-days in Belgian hospitals according to classification, 2013-2016

	2013	2014	2015	2016
<b>Number participating hospitals</b>	119	133	143	140
<b>Confirmed CLABSI</b>				
% (number)	41 (605)	42 (765)	43 (910)	41 (704)
incidence	0.8	0.9	0.9	0.7
<b>Probable CLABSI</b>				
% (number)	31 (455)	33 (600)	35 (736)	35 (597)
incidence	0.6	0.7	0.8	0.6
<b>Possible CLABSI</b>				
% (number)	28 (421)	25 (465)	22 (460)	24 (420)
incidence	0.6	0.5	0.5	0.4
<b>Total CLABSI</b>				
% (number)	100 (1,481)	100 (1,830)	100 (2,106)	100 (1,721)
incidence	2.1	2.1	2.2	1.8

### Results

The proportion of confirmed, probable and possible CLABSI was more or less stable since 2013 and the mean CLABSI incidence per 10,000 bed days varied in the same way (see figure and table).

### Conclusions

In the Belgian bloodstream infection surveillance:

Any of the three different classifications in the CLABSI definition could be used to follow-up CLABSI trends.