



# *Using Textbook Outcomes to Benchmark Practice in Pancreatic Surgery*

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# Textbook Outcomes in Pancreatic Surgery

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# Background

- Textbook outcome is a composite measure
- Reflects the 'ideal' surgical outcome
- Used in multiple specialties
- Attempts to cover the entire surgical process in a single indicator

## Textbook Outcome

### *Nationwide Analysis of a Novel Quality Measure in Pancreatic Surgery*

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# Textbook Outcome parameters

## Absence of...

1. Bile leak
2. Post-pancreatectomy haemorrhage (PPH)
3. Post-operative pancreatic fistula (POPF)
4. Clavien-Dindo  $\geq 3$
5. In hospital mortality
6. Re-admission within 30 days

# Aims

1. Can we use Textbook Outcomes to benchmark ourselves to larger centers?
2. Is Textbook Outcome a useful tool to assess changes to our clinical practise?

# Methods

## Christchurch

- Prospective & retrospective audit
- March 2005 - March 2020
- 273 patients
- 182 PDs, 91 DPs

## Netherlands

- Prospectively maintained nationwide audit (DPCA)
- Jan 2014 - Dec 2017
- 3520 patients
- 2633 PDs, 708 DPs

**Results...**



Figure 1a: Pancreaticoduodenectomy

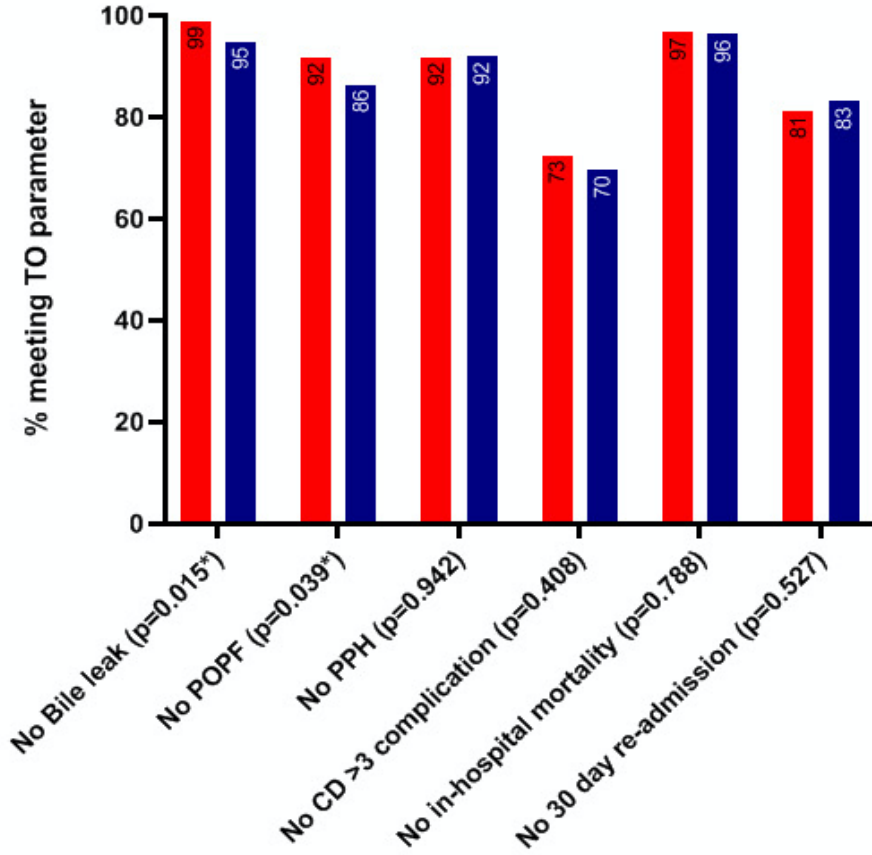


Figure 1b: Distal Pancreatectomy

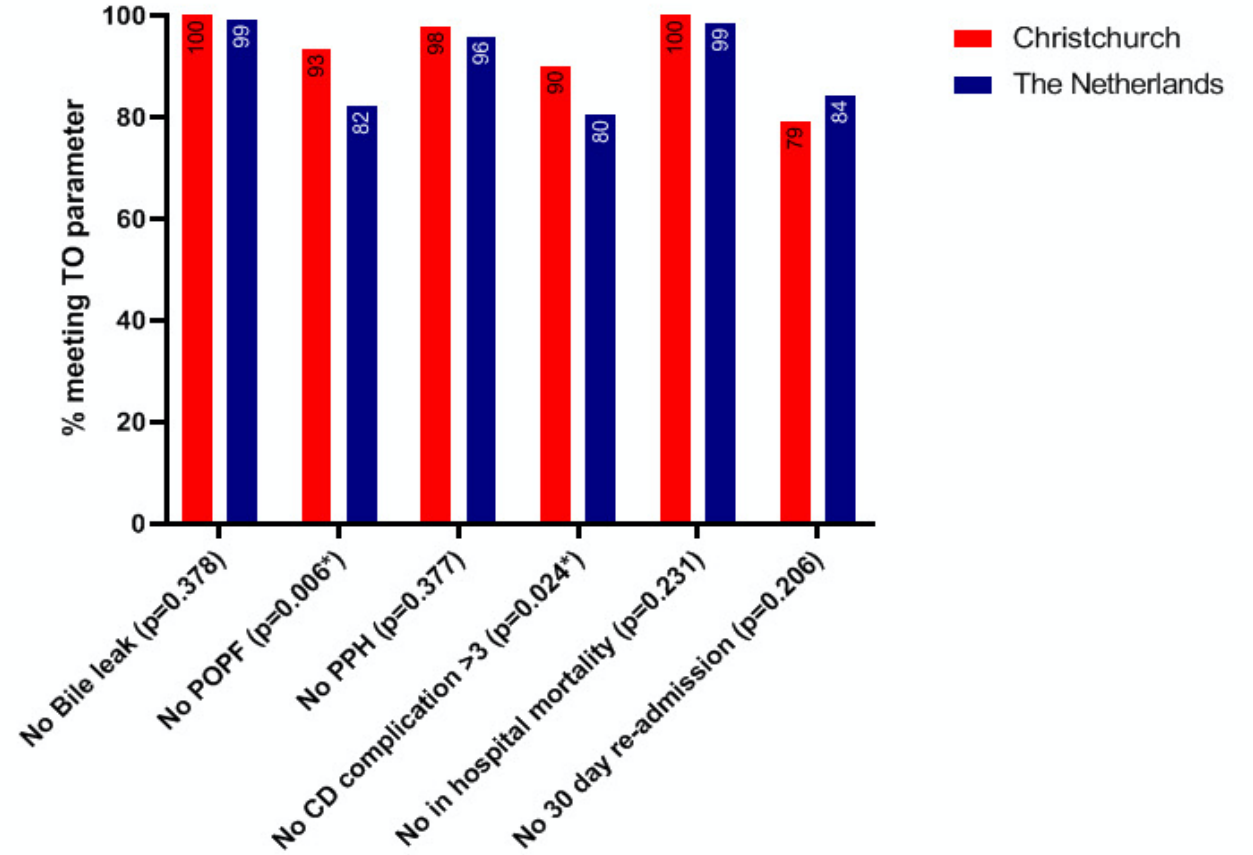
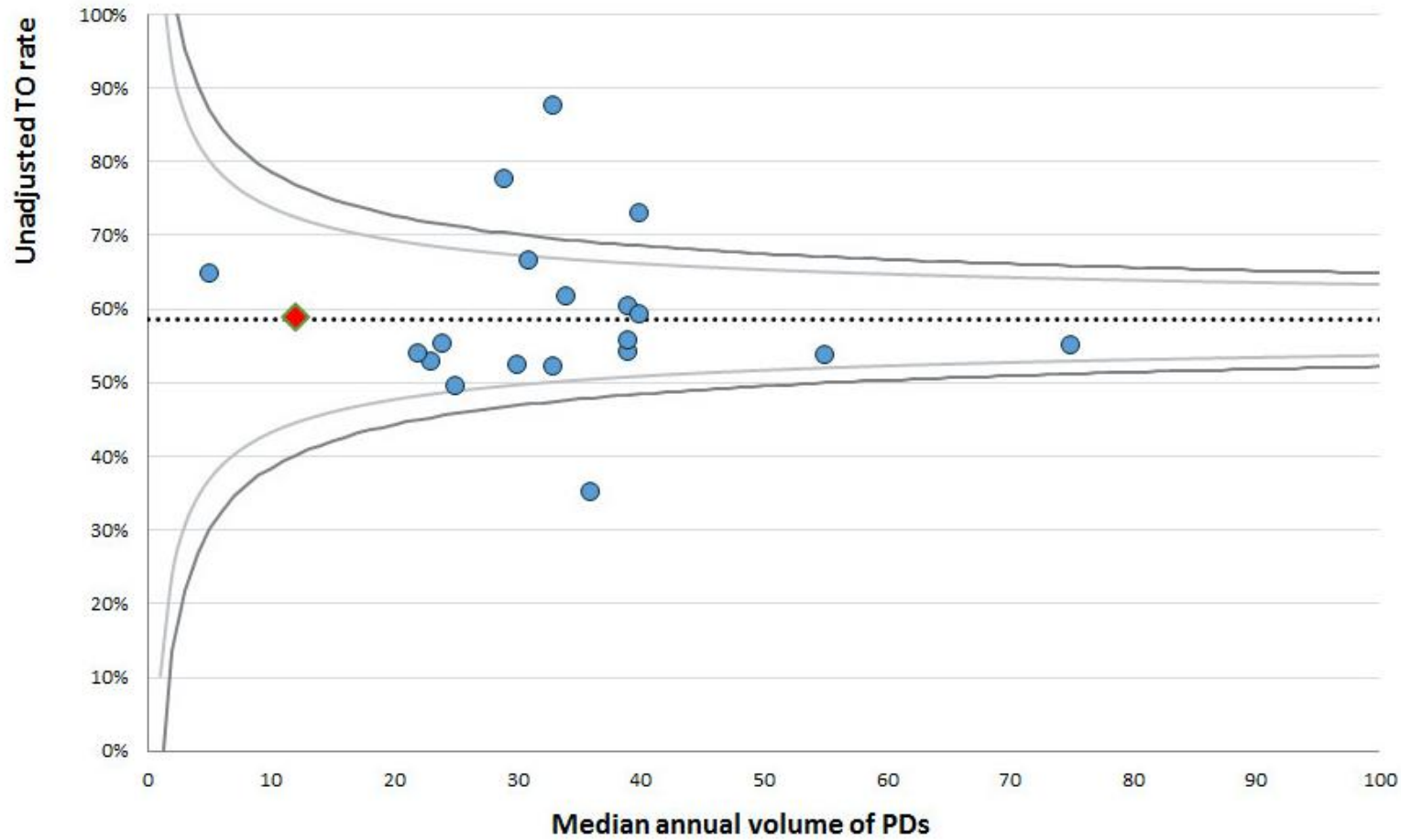


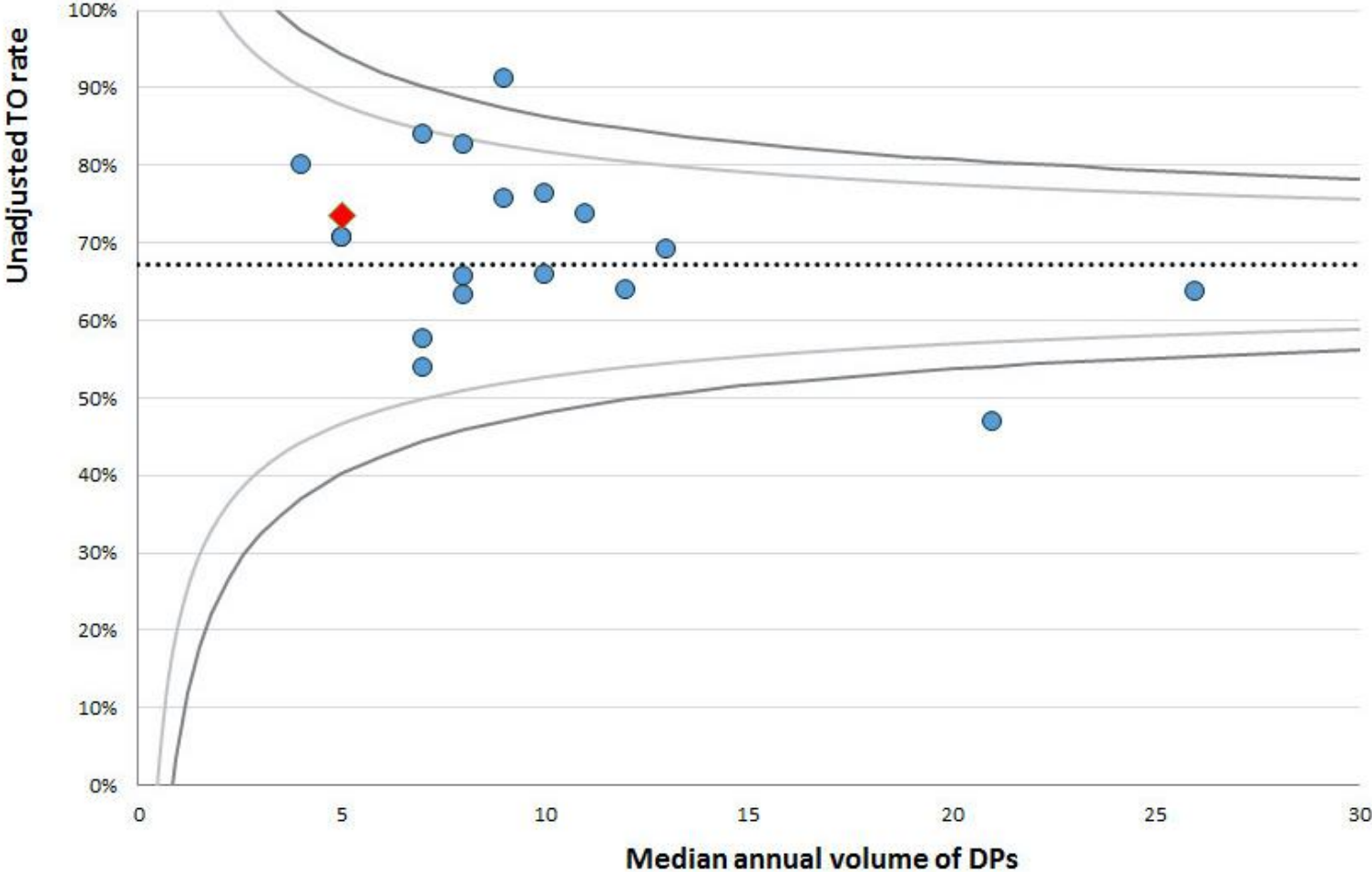
Figure 2a: Unadjusted Textbook Outcome rates for pancreatoduodenectomy



59% vs 58.3%

- Hospital in The Netherlands
- ..... Mean Textbook Outcome rate
- 99% Confidence limit
- 95% Confidence limit
- ◆ Christchurch

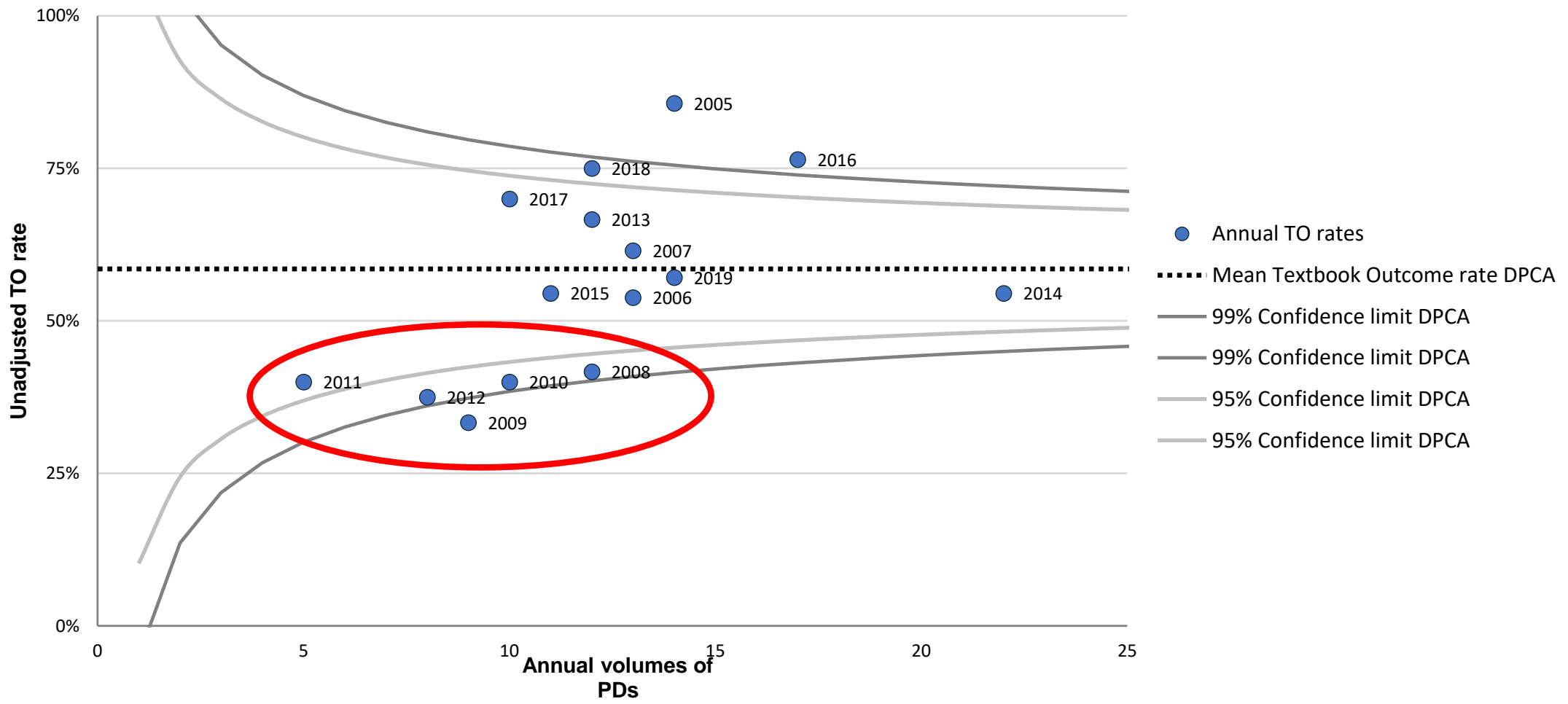
Figure 2b: Unadjusted Textbook Outcome rates for distal pancreatectomy



74% vs 67%

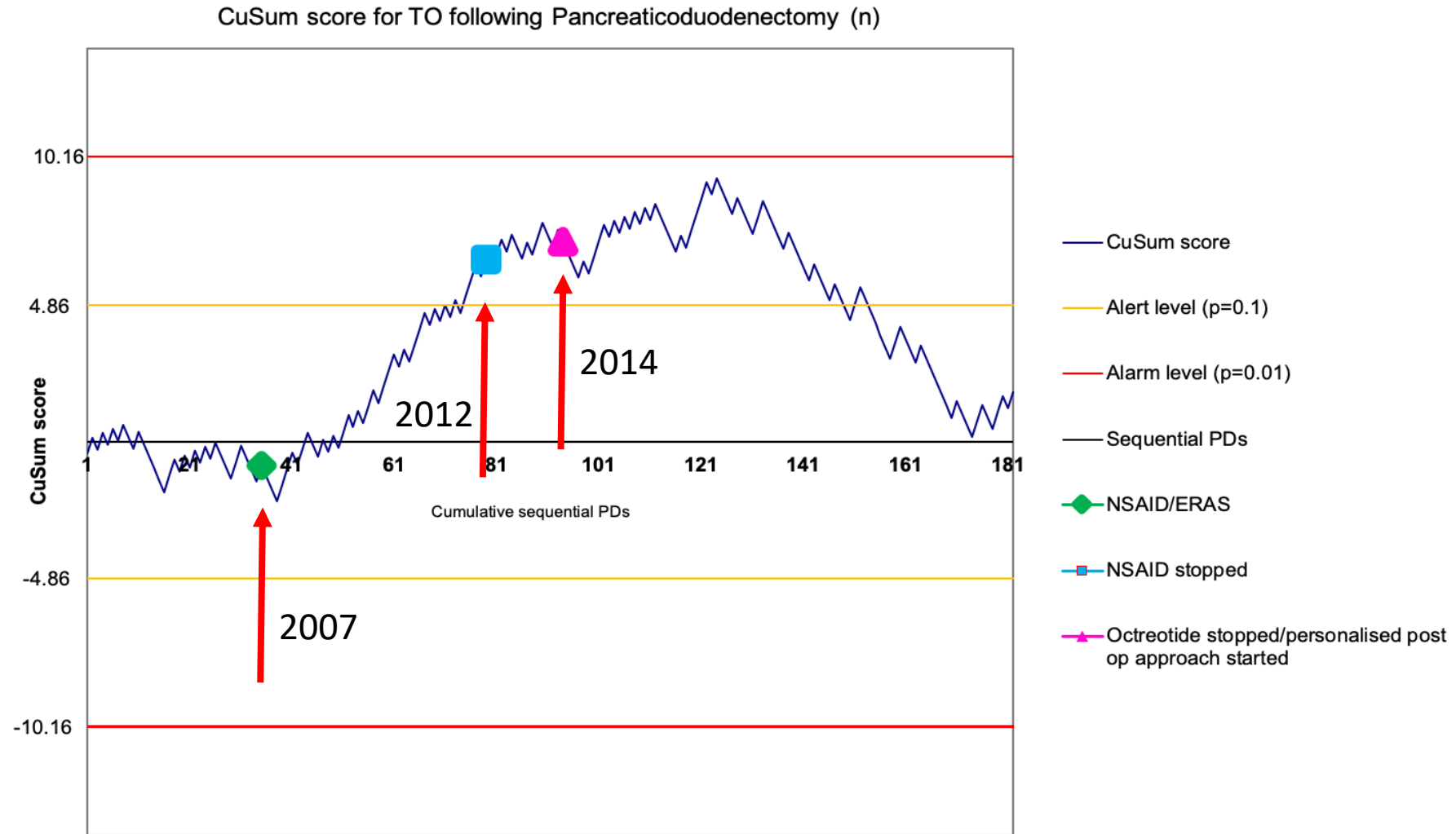
- Hospital in The Netherlands
- ..... Mean Textbook Outcome rate
- 99% Confidence limit
- 95% Confidence limit
- ◆ Christchurch

# Unadjusted yearly Textbook Outcome rates for pancreatoduodenectomy



# CuSum

- Sequential probability ratio testing
- Binary outcome of TO
- Assess trends in TO



# Conclusion

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- Comparable Textbook Outcome rates to the Netherlands
- CuSum is a useful tool to assess effects on outcome of changes to clinical practice