The impact of standardized structured reporting of pathology reports for breast cancer in the Netherlands.

Annefleure Snoek, Niek Hugen, Otto Visser, Lucy Overbeek, Iris Nagtegaal
No disclosures
Introduction

• Appropriate breast cancer care depends on accurate pathology reporting.

• Adjuvant treatment of breast cancer is based on prognostic and predictive pathological parameters.

• Narrative pathology reports (NR) not always contain all important parameters.

• Synoptic reporting (SR) was introduced in the Netherlands in 2009.

• Synoptic reporting (SR) is recommended to ensure complete pathology reports.
Previous studies: histological grade

- Appleton, 1998: N=40
- Austin, 2009: N=402
- Mathers, 2001: N=100
- McEvoy, 2004: N=1649
Research aim:
Evaluation of the impact of synoptic reporting on breast cancer *care*
Methods

- Inclusion period between 2007-2014

- Data extraction:
  - Netherlands Cancer Registry (NCR):
    - Demographics
    - Mandatory breast cancer pathology parameters available
    - Vital status and follow-up time
    - Primary treatment
  
  - The national pathology database (PALGA):
    - Type of report (NR/SR)
Methods: Case selection

NCR: n = 136,095

Exclusion (non-invasive, no surgery, complex cases):
  n = 62,679

Final set: n = 73,416

Reference: n = 17,547 (2007-2008)

NR: n = 30,351 (2009-2014)

SR: n = 25,518 (2009-2014)
Results: Use of synoptic reporting
Results: Completeness

- pN
- pT
- Her2neu status
- PR status
- ER status
- Tumor diameter
- Histologic grade
- Histologic type

Accuracy of reporting (%)

Legend:
- Reference
- NR
- SR
Quality of care: hormonal therapy

- National guidelines: hormonal therapy in cases of ER+ and pN1mi+
- More treatment in SR patients (95.1% versus 94.7%)
- Significant better outcome: 5-year survival 90.7% (SR) versus 89.8% (NR)

Numbers at risk

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Overall survival (%) vs. Time (years)

- SR: Orange line
- NR: Blue line

$p < 0.05$
Quality of care: targeted therapy (Her2)

- More treatment in SR patients: 69.4% versus 63.1%
- Better outcome: 5-year survival 94.4% (SR) versus 93.0% (NR)

Numbers at risk
- SR: 1956, 1942, 1462, 961, 567, 278
- NR: 2168, 2158, 2011, 1803, 1477, 1046

Graph: Overall survival (%) vs Time (years) with p<0.05
Overall survival: total cohort

- Better outcome: 5-year survival 89.2% (SR) versus 88.7% (NR)

Numbers at risk

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p<0.05
Discussion

+ **Strengths:**
  - First study investigating the effect of SR on breast cancer care
  - Nationwide cohort study (> 70,000 breast cancer patients)

− **Limitations:**
  - Registration bias: NCR as data source for pathology reports
  - No information of recurrences and cancer-specific mortality
  - Residual confounding (e.g. comorbidities)
Conclusion

• Synoptic reporting in the Netherlands
  • Improving (already high quality) pathological reporting

• Better completeness for relevant information

• In line with older, smaller studies

• Influences treatment decisions, resulting in better patient care and better survival

• Similar results have been obtained in colorectal cancer