

Real-World Hospital Data Suitability for Multi-Country Health Technology Assessment in Early-Stage Breast Cancer: A Feasibility Study in Six ONCOVALUE Centres

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Background

- Real-world hospital data have great potential to inform health technology assessment (HTA) in oncology.
- Methodological challenges exist as hospital data tend to be only partly structured, complete or fit-for-purpose.

Preliminary results

Real-world patient characteristics and data generalizability vary across centres and by tumour subtype (Figure 1).



 Performing multi-country HTA is still demanding due to heterogeneity in data maturity across cancer centres.

Aim

To assess the quality and suitability of hospital data in generating real-world evidence for multi-country HTA in the clinical context of early-stage breast cancer.

Data

- Real-world, retrospective, individual patient data on early breast cancer patients between 2015 and 2023
- Patient and tumour characteristics, neoadjuvant treatment, clinical outcomes, costs and quality-of-life





HR+/HER2- TN HR+/HER2+ HR-/HER2+ Unclassifiable

Data vary in terms of presence and structure, underlining the need for standardized processing and NLP (Figure 2).

Figure 2. Structure of 40 patient, tumour and treatment data items

Mainly structured Partially (un)structured Mainly unstructured Unavailable





Methods



ISPOR SUITABILITY framework was used to guide evaluation of hospital data suitability



ESMO-GROW was used to select relevant data blocks needed for an HTA

Data reliability was assessed using several metrics such as plausibility, persistence and completeness (Figure 3).

Figure 3. Data completeness of certain key breast cancer variables





ONCOVALUE Data Dictionary was crafted to ensure data harmonization in line with OMOP



Semi-structured interviews were conducted with hospital data experts to assess suitability



A technical questionnaire was developed following the ISPOR SUITABILITY framework

Discussion

Transparent documentation is essential to understand the unique opportunities and challenges of real-world hospital data in generating credible real-world evidence for HTA.

ISPOR Europe 2024 | November 17 – 20 | Barcelona, Spain

Acknowledgement: $\blacksquare | Q \lor | A^*$

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