Adherence to Endocrine Therapy in Breast Cancer: A Determinant of Outcomes

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INTRODUCTION

- Adherence to breast cancer therapies is essential for optimizing treatment effectiveness, survival outcomes, and healthcare utilization.
- Real-world studies were used to evaluate the impact of breast cancer therapies, including adjuvant endocrine therapies (AETs), on clinical and other outcomes with particular emphasis on trends across diverse care settings and populations to identify high-risk groups where adherence interventions may be most impactful
- This scoping review summarizes the current landscape of real-world studies evaluating the association between adherence to AETs and clinical outcomes

PURPOSE

- To evaluate the impact of adherence to breast cancer therapies on outcomes using real world data within a broader scoping review

METHODS

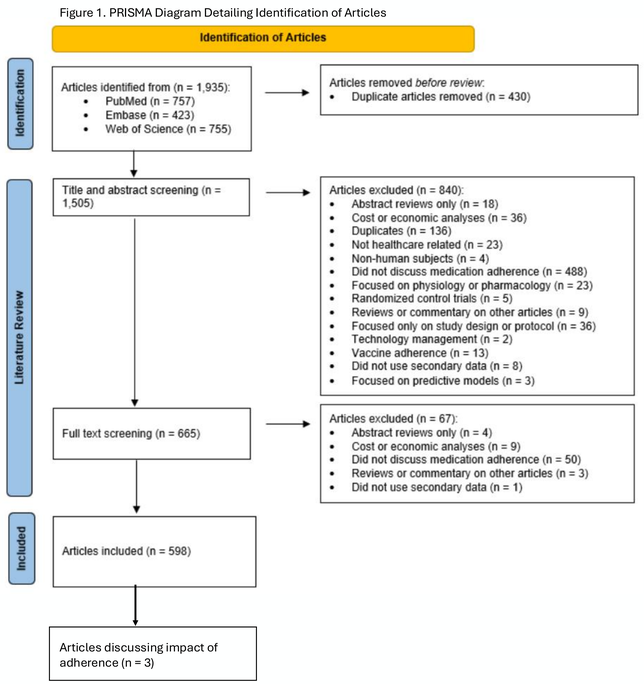
- A scoping review of studies on medication adherence or persistence using real-world secondary data (administrative claims or electronic medical records)
- Articles were identified from PubMed, EMBASE, and Web of Science using the terms compliance, adherence, administrative claims, real-world, and observational
- Among 1505 articles reviewed, 98 met the inclusion criteria for assessing adherence in any disease state
- Three studies focused on breast cancer and were included in this analysis
- These studies reported outcomes including survival and healthcare resource utilization (HCRU)

RESULTS

Study Focus	Key Findings
Adjuvant Endocrine Therapy (Older Adults)	Higher adherence to adjuvant endocrine therapy (MPR ≥80%) was associated with improved survival and unadjusted analysis, with lower adherence linked to increasing age (OR 1.03 per year) and reduced by prior chemotherapy (OR 0.42) and early oncology follow up (OR 0.83).
Metastatic Breast Cancer (Lapatinib)	Nonadherence to lapatinib (22% with MPR <80%) was associated with concomitant taxane therapy (OR 10.30) and increased outpatient visits, despite high mean adherence (MPR 87%).
Appalachian Population (Access to Care)	Nonadherence (31%) and nonpersistence (30%) to AET were associated with increased mortality, with tamoxifen improving adherence (OR 2.82) and persistence (HR 0.40), and outcomes influenced by cost and access-related factors.

Table 1. Studies Examining the Impact of Adherence

Figure 1. PRISMA Diagram Detailing Identification of Articles



- Across three real-world studies evaluating adherence to tamoxifen, adjuvant endocrine therapy (AET), and lapatinib, higher adherence was associated with improved clinical and economic outcomes.
- Patients with low adherence, defined as medication possession ratio (MPR) <80%, was associated with worse outcomes including increased mortality risk and greater levels of HCRU
- A study conducted in an underserved population found a 10% increase in mortality risk among patients who were non adherent to tamoxifen
- In a study of patients with metastatic breast cancer, low AET adherence was associated with a 26% higher rate of outpatient visits

LIMITATIONS

- Observational real-world designs are subject to bias and confounding
- Definitions of adherence and persistence varied across studies (e.g. MPR vs PDC)
- Measures such as MPR and PDC reflect prescription fill patterns and may not accurately confirm medication consumption
- Only 3 breast cancer specific studies were identified, highlighting the limited amount of real-world research available in this area
- Limited data on newer breast cancer therapies and long-term persistence outcomes

CONCLUSIONS

- These findings demonstrate that poor adherence to breast cancer therapies compromises treatment effectiveness and may contribute to worse survival outcomes, even in early-stage disease

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