A SYSTEMATIC REVIEW

INTRODUCTION

• Adherence to oral medications among patients with breast cancer (BC) has been reported to be suboptimal
• Data on consequences of non-adherence to therapies on overall cost of treatment are limited
• We conducted a systematic literature review to assess economic burden due to treatment non-adherence among patients with BC

METHODS

• Embase® and MEDLINE® were searched for relevant studies published post 2005. Each citation was reviewed by two independent reviewers; any disagreement was resolved by a third reviewer (Fig. 1)
• Inclusion criteria: English language studies with adult BC patients [≥18 years] assessing non-adherence and its impact on overall cost of BC therapy were included

RESULTS

• Of the 595 citations obtained from the database searches, seven citations were included after first screening. Following second screening, data were extracted from three studies from four publications (Fig. 2)

• An overview of the included studies has been provided in Table 1
• Adherence to hormone therapy was measured by proportion of days covered in two studies

• Adherence to lapatinib was measured using medication possession ratio, time to treatment interruption/discontinuation and time to end of continuous treatment in the remaining one study

• The proportion of non-adherent patients ranged from 22% to 46% across the included studies

• A study assessing 1263 patients with BC taking adjuvant tamoxifen showed that low adherence was associated with loss of 1.43 life years (95% CI: 1.15–1.71) or 1.12 quality-adjusted life years (95% CI: 0.91–1.34). Moreover, low adherence to tamoxifen was found to be associated with an increased discounted medical cost of £5,970 (95%CI: £4,644–£7,372) over an average patient’s lifetime. Key contributors to increased cost were in-patient stay and other dispensing costs. Further, the associated cost for patients with low adherence was found to be 26% higher as compared to adherent patients (p<0.001)

• After adjustment of confounding factors including age, race, comorbidity, cancer stage, and type of hormone therapy, adjusted mean medical costs were higher for non-adherent cohort as compared to the adherent cohort across 4 years. However, no significant difference in total healthcare costs was observed between adherent and non-adherent women

• Results of another study by Delea et al. demonstrated a statistically non-significant association between non-adherence to lapatinib and total healthcare costs (p=0.870) among 666 women with metastatic BC

CONCLUSIONS

• Limited published evidence suggested that non-adherence to treatment is associated with higher medical and overall healthcare costs among patients with BC
• Improvement in adherence can help to reduce the economic burden in long-term and further help improving the cost-effectiveness of the treatments available for BC

REFERENCES


Fig. 1: Systematic review methodology

Fig. 2: Flow of citations through the review

Fig. 3: Unadjusted mean yearly medical, pharmacy, and total healthcare costs in adherent (PDC >0.8) and non-adherent groups (PDC <0.8) across 4 years among women undergoing hormone therapy for breast cancer (Wu 2013)