In this issue

Aromatase inhibitor adjuvant therapy in breast cancer
In contrast to tamoxifen, aromatase inhibitors (AI) stop oestrogen receptor (ER) mediated breast cancer mitogenic signalling by preventing oestrogen biosynthesis rather than by blocking the ER. Highly selective and potent third-generation AIs include the non-steroidal agents letrozole (Femara) and anastrozole (Arimidex); and the steroid exemestane (Aromasin). With the demonstration of the superiority or equivalence of third-generation AIs compared to tamoxifen as first-line treatment in metastatic breast cancer, large adjuvant breast cancer trials are currently evaluating all three of these agents for long-term efficacy and safety relative to the current standard of tamoxifen for 5 years. Three treatment strategies under investigation are: replacement of tamoxifen as adjuvant therapy for 5 years (early adjuvant therapy); sequencing of tamoxifen before or after an AI during the first 5 years (early sequential adjuvant therapy); and following 5 years of tamoxifen with an AI (extended adjuvant therapy). In this issue of EJC, Mouridsen and Robert, provide a comprehensive review of eight clinical trials, their design and available data on the efficacy of AI adjuvant therapy in breast cancer.

Aromatase inhibitor adjuvant therapy in breast cancer continued…
In an additional position paper by Baum in this issue of EJC, the potential of aromatase adjuvant therapy is further analysed. The current status of tamoxifen adjuvant therapy, the role of aromatase inhibitors in post-menopausal women and current clinical data comparing these two drug classes are evaluated. The relevance to clinical practice of these ongoing trials is also discussed.

Effect of HRT on breast cancer risk
The incidence of breast cancer within a population is influenced by a combination of effects including underlying incidence, effect of population screening and socioeconomic effects that may influence women's decisions to commence families. Whilst a woman's baseline inherited risk will not change, fertility, diet and medication may modify subsequent risk. Hormone replacement therapy (HRT) has been identified as a risk factor for breast cancer development. In an epidemiological study published in this issue of EJC, Coombs and colleagues have calculated the potential impact of hormone replacement therapy (HRT) on breast cancer incidence in Australia. They have also estimated how changes in prescribing HRT to women could affect this risk. The effects of HRT on breast cancer incidence was estimated using the attributable fraction technique with prevalence data derived from the 2001 Australian Health Survey and published rates of breast cancer relative risks from HRT use. The authors conclude that when HRT prevalence is relatively high, the effect on breast cancer incidence in the population will be significant. A small modification in HRT prescribing practices may impact breast cancer incidence in Australia with associated financial and health care provision implications.

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