Cancer Registry (1994–1996). Only 34.1% were treated by gynecologic oncologists. Treatment by a gynecologic oncologist conferred a much higher likelihood of undergoing primary surgery (91.9% vs 69.1%; $P<0.001$) or being given chemotherapy (90.0% vs 70.1%; $P<0.001$). Patients referred to a gynecologic oncologist were more likely to present with advanced-stage cancers and had a higher incidence of grade 3 tumors. Patients treated by other specialists were more likely to have unstaged cancers (8.0% vs 2.1%; $P<0.001$).

The 5-year disease-specific survival rate was higher among patients referred to gynecologic oncologists than among those who saw other specialists (38.6% vs 30.3%; $P<0.001$). Younger age, earlier stage and lower tumor grade all independently predicted improved survival, as did treatment by a gynecologic oncologist. The last finding, however, was largely attributable to the fact that gynecologic oncologists were more likely to refer patients for combined primary surgery and chemotherapy; both treatments were associated with significantly improved survival. The authors suggest that gynecologic oncologists' better understanding of the natural progression of the disease leads them to make more appropriate management decisions.

Original article Chan JK *et al.* (2007) Influence of the gynecologic oncologist on the survival of ovarian cancer patients. *Obstet Gynecol* **109:** 1342–1350

Minimal residual disease quantification predicts relapse in children with ALL

Minimal residual disease (MRD) is a significant prognostic factor in childhood acute lymphoblastic leukemia (ALL). Previous studies have shown the utility of real-time quantitative polymerase chain reaction (RQ-PCR) in the detection of MRD but were limited by the small number of participants. Zhou *et al.* have reported the clinical utility of RQ-PCR analysis of MRD in a large cohort of children with ALL.

The study included 284 children with B-lineage ALL in whom MRD was quantified by RQ-PCR to assess immunoglobulin heavy chain and T-cell receptor rearrangements. MRD was undetectable in 176 (62.0%) children; the 5-year risk of relapse in this group was 5%. The 5-year risk of relapse was much higher at 44% in the 108 (38.0%) children with detectable MRD. Moreover, there was a significant linear association of MRD with risk of relapse ($P<0.001$). On the basis of recursive partitioning analyses and clinical characteristics, the optimum cutoff level of MRD to predict relapse was identified as 1 leukemic cell per 10^3 normal cells. For children with 'low' MRD (<1 leukemic cell per 10^3 normal cells), the 5-year risk of relapse was 12%. Children with 'high' MRD (>1 leukemic cell per$T10^3$ normal cells) had a 10.5-fold higher risk of relapse (72%, $P<0.001$), and a shorter time to relapse, than those with low MRD. MRD was the only significant independent predictive factor for risk of relapse ($P<0.001$), and there was no difference in the effect of MRD on risk of relapse between groups with different white blood cell counts.

This study shows that the quantification of MRD is the most important predictive factor in childhood ALL.

Original article Zhou J *et al.* (2007) Quantitative analysis of minimal residual disease predicts relapse in children with B-lineage acute lymphoblastic leukemia in DFCI ALL Consortium Protocol 95–01. *Blood* **110:** 1607–1611

Study results emphasize the importance of patient selection when offering PBI

The survival outcomes associated with breast-conserving therapy (BCT) followed by whole-breast external-beam radiotherapy are equivalent to those with modified radical mastectomy; however, many women who are eligible for BCT do not receive it. The time commitment (~7 weeks) required for whole-breast irradiation after lumpectomy is one limitation of BCT. Partial breast irradiation (PBI) delivered by the MammoSite® balloon brachytherapy catheter (Cytyc Corporation, Marlborough, MA) can be completed in 1 week, markedly reducing the time required for BCT treatment. Chen and co-workers have reported on the efficacy and patterns of failure associated with use of this device.

Between 14 October 2002 and 23 October 2006, 70 patients who had undergone lumpectomy for early-stage breast cancer were treated with the MammoSite® device. After a median follow-up of 26.1 months, three 'elsewhere' failures (in-breast recurrence >2 cm from the lumpectomy site), one lumpectomy bed failure,