



NANOTECHNOLOGY AND ITS ROLE IN MBC

KATHY GRANT, RN

Nanoscience is finding its way into the chemotherapy recipe book. A nanometer is one billionth of a meter; a human hair is 50,000 nm, DNA is 2.5 nm to give one a perspective.

ABRAXANE is paclitaxel wrapped in human albumin making its size 130 nm. Because of this, it uses the body's own endothelial transport systems allowing drug to penetrate tumor. ABRAXANE was approved in

January 2005 for metastatic breast cancer after failure of anthracycline based first line therapy or relapse within six months of adjuvant therapy.

A Phase III study compared Taxol to ABRAXANE on a q3wk. schedule with response rates double that of traditional Taxol. The main side effects for ABRAXANE were similar to Taxol except for peripheral neuropathy that was reported more frequently in the ABRAXANE arm.

ABRAXANE represents a unique drug delivery system using human albumin rather than chemical

- ABRAXANE is:**
- > free of solvents
 - > 30 minute infusion time q3wk
 - > No premedication

solvents. It offers another option to many women who have failed other therapies. For nurses, paclitaxel is very familiar but administration of ABRAXANE takes only 30 minutes and there is no premedication.

Alternate dosing schedules and trials in other tumor types are currently underway. Stay tuned. **OA**