**Breast Lump - Summary**

* RF’s:
  + Female
  + Increases with age
  + +Fhx: 1st degree relative =2x risk, 3rd degree=4x
  + Personal or +FHx breast or ovarian Ca esp before age 40
  + Previous breast bx
  + High breast density
  + Nullparity; 1st preg>30y.o
  + Radiation exposure
  + >5yrs HRT
  + Breast cancer risk assessment calculator available at <http://www.cancer.gov/bcrisktool/>
* Protective factors
  + Pregnancy before age 30
  + Fewer years menstruating
  + Lactation
* Note promotion of overall healthy lifestyle and women’s health promotion; obesity, alcohol
* Red Flags
  + Unilateral non-cyclical pain
  + Unilateral nipple discharge; watery, serous, serosanguineous, single duct
  + Breast mass: unilateral, hard, immobile, noncystic, skin retraction, dimpling or edema (peau d’orange)
  + Hx: postmenopausal, previous hx cancer, fhx breast ca
* Screening
  + Genetic screening
    - BRCA1/2 if +breast AND ovarian ca
    - Strong fhx of br and ovarian ca (Ashkenazi Jew)
    - Fhx male br ca
    - <35y/o
  + Mammography q1-2yrs-new guideline age 50-69 rather than 40-79
    - Start 10yrs earlier of first age of Br Ca in first degree relative
  + Breast self-exam no longer routinely advised
* Investigation of breast cancer
  + U/S🡪cystic vs solid
  + MRI-high sensitivity poor specificity
  + Galactogram/ductogram for nipple d/c – ductal lesions
  + Metastatic work up as indicated – bone scan, abdo u/s, cxr, head CT (or CT chest/abdo/pelvis)
  + Diagnostic mammogram always indicated even if <50y/o
* Diagnosis
  + Needle aspiration if palpable, cystic; send for cytology if blood or cyst doesn’t completely resolve
  + U/S or mammography guided core needle bx (most common)
  + Fine needle aspiration (FNA) for palpable solid masses, need experienced practioner
  + Excisional bx- only as 2nd choice to core needle bx
* DDx for breast mass:
  + Benign
    - Non proliferative: fibrocystic change, cystic mastitis, mammary dysplasia
    - Proliferative - no atypia
      * Fibroadenoma, intraductal papilloma, ductal hyperplasia without atypia
    - Proliferative – with atypia
      * Atypical hyperplasias
    - Others - Fat necrosis, mammary duct ectasia, Montgomery tubercle, abscess, galactocoele, silicone implant, Granulomatous mastitis (TB, Wegners, sarcoidosis)
  + Breast Cancer
    - Non-invasive: ductal in-situ, lobular in-situ
    - Invasive: ductal, lobular, Paget’s disease, inflammatory ca, male br ca, sarcomas, lymphomas, others (papillary, medullary, mucinous)
* Complications of breast cancer
  + Mets: bone>lungs>pleura>liver>brain
  + Biopsychosocial
  + Treatment or surgical S/E, body changes, fertility, family inheritance implications
  + Bone health
* Resources and support for patient
* Provide contact info for patient while undergoing diagnosis and treatment
* Supportive care for patient throughout experience

<http://www.cmaj.ca/content/suppl/2007/06/14/158.3.DC1#physicians>

<http://www.bcmj.org/sites/default/files/BCMJ_50Vol4_breastcancer.pdf>

<http://www.cmaj.ca/content/suppl/2005/07/15/172.10.1319.DC1/cpg9patient-final.pdf>

<http://www.cmaj.ca/content/183/17/1991>

Toronto Notes –gen surg section