

Hôpital régional de Sudbury Regional Hospital

Image-Guided Core Breast Biopsy: Implementing Guidelines into Community Practice

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Carolyn Jackson

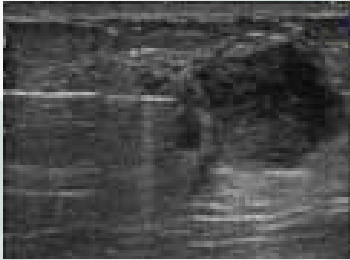
Project Coordinator Merci Miron-Black

Clinical Practice Guidelines (CMAJ 1998)

- * "Recommends the preferential utilization of Image-Guided fine needle or core biopsy in the evaluation of mammographic screen-detected abnormalities, unless specific clinical conditions prevail."
- * "Image-Guided core breast biopsy provides reliable information that can result in the avoidance of many surgical biopsies and allow for better planning for surgery."

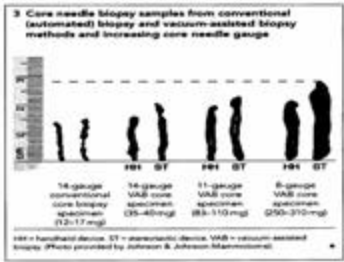
Source: Clinical Practice Guidelines for the Care and Treatment of Breast Cancer - A Canadian consensus document. Supplement to CMAJ 1998;156(3 Suppl)

Ultrasound-guided Core Breast Biopsy



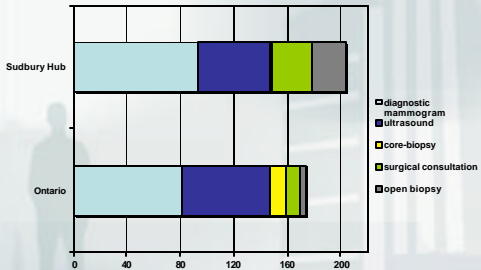
Source: www.radiologyinfo.org

Samples of Core Breast Biopsies



Source: Houssami N, et al. The prevention, detection, and management of breast cancer. MJA 184(5):230-234

Diagnostic procedures (%) performed following a mammogram - only abnormality on OBSP screen (2003)



Location	diagnostic mammogram	ultrasound	core-biopsy	surgical consultation	open biopsy
Sudbury Hub	~85%	~10%	~5%	~0%	~0%
Ontario	~80%	~15%	~5%	~0%	~0%

Quality Determinants of Organized Breast Screening Programs (2003)

	Sudbury Hub Site	OBSP Provincial Data (& Standard)	Canadian Standard
Benign: Malignant Ratio for Open Surgical Biopsies	12.33:1 (initial) 2.56:1 (total)	0.5:1 (<1:1)	<2:1
Diagnostic Interval (%) within 7 weeks with an open biopsy	65.7%	>90%	>90%

CCO Access to Services Innovation Fund

Cancer Quality Council of Ontario:
Strategies for Addressing Waits and Delays in the Ontario Cancer System (Baker & Schwartz, 2004)

Critical Success Factors in System Redesign

- * Mapping the patient journey
- * Managing and reducing variation
- * Understanding and matching capacity and demand

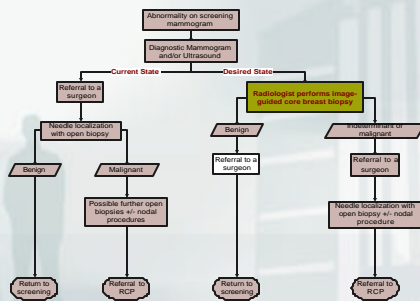
Improvement Model

- * External experts in system redesign.
- * A staged approach with selected local sites with existing local champions.
- * Creating a collaborative improvement effort linking teams in multiple organizations who focus on similar topics and share their lessons learned.
- * Pilot work in one focal area to develop a set of local experts who can help support expansion of these initial efforts.

Challenges to implementing Image-Guided Core Breast Biopsy at Sudbury Regional Hospital

- * Lack of awareness of CPG regarding Image-Guided Core Breast Biopsy among family physicians.
- * Engrained clinical pathways among dedicated surgical specialty.
- * Shortage of radiologists.
- * Requirement for more coordinated booking.
- * Host hospital in midst of restructuring, stalled construction, and integration.
- * Diagnostic imaging department short staffed.
- * Stereotactic unit outdated and shortage of ultrasound equipment.
- * In midst of changeover to PACS.
- * Lack of patient education resources.
- * Additional training requirements for ultrasound technologists.

Screening Mammogram Abnormality Assessment Pathway at OBSP Sudbury Hub Site



Informational Needs of Patient

A woman's anxiety regarding a mammography abnormality can be reduced substantially if she is kept informed and if the diagnosis is expedited. The full and sympathetic explanation at every step, with ample time for questions, are important components for health care for these women.

Source: Clinical Practice Guidelines for the Care and Treatment of Breast Cancer - A Canadian consensus document. Supplement to CMAJ 1998;158(3 Suppl)

Required Components for Implementation

- * Designated coordinator/navigator.
- * Education to all healthcare professionals involved in clinical pathway about Image-guided Core Breast Biopsy CPG.
- * Development and implementation of appropriate communication/reporting tools and systems.
- * Investment in training of existing professionals.
- * Analyze capacity vs. demand requirements - all levels.
- * Foster a practice and professional culture shift.
- * Investment of time, money and energy to enable the above.

Pilot Study for Image-Guided Core Biopsy

Define a small 'trackable' population of patients and physicians:

Elliot Lake women who attend OBSP:

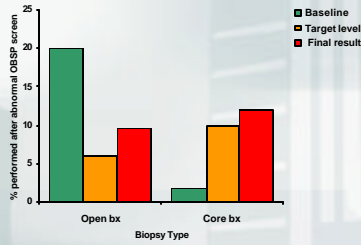
667 women screened in 2003
 48 referred for diagnostic imaging
 11 required biopsy
 6 diagnosed with breast cancer

Elliot Lake physicians:

13 family physicians
 1 general surgeon

Length of project - 5 months

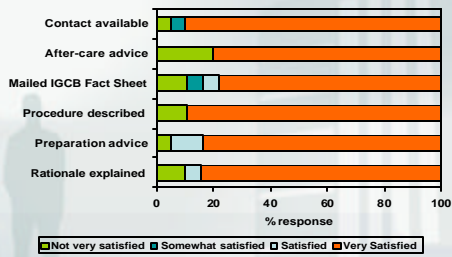
Biopsy Type as a Result of Redesign



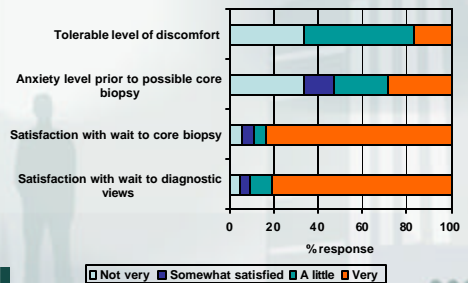
Diagnostic Interval by Biopsy Type

Biopsy type	Time to Diagnosis (days)	
	Range	Mean
Core biopsy N=5	14-30	26
Open biopsy N=4	31-82	60

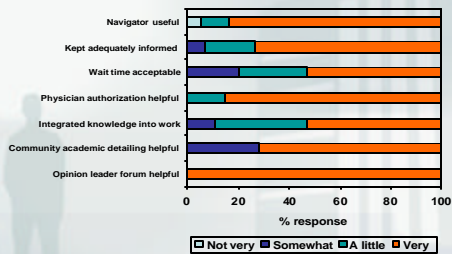
Patient Experience Survey



Patient Experience Survey



Professional Experience Survey



Lessons Learned

Best practices and clinical practice guidelines require more than dissemination: *they require supported implementation.*

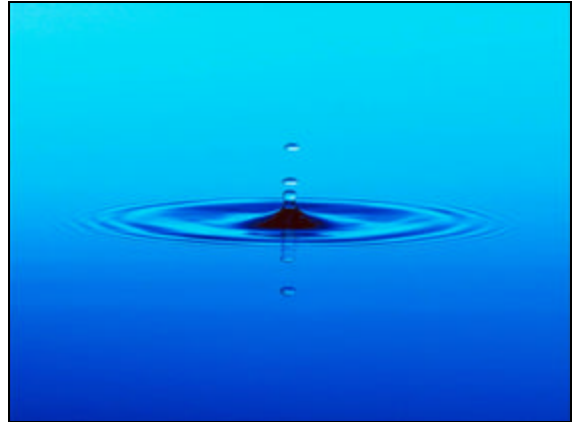
Supported implementation requires:

- Opinion leaders and local champions.
- Provision of educational outreach to clinicians and patients.
- Development of a clinical pathway that is responsive to local circumstance.
- Sufficient human resources (radiologists and trained technologists).
- Sufficient technical and equipment resources.
- A navigator to assist both the clinician and patient chart the clinical pathway.
- Development and reporting of quality indicators to audiences/stakeholders.
- Continued consultation with clinicians to obtain feedback as practice environments change.

Take heart and go forward:

“Expect the diffusion to take longer if it involves changes in the adopting organization’s culture or extensive interdepartmental collaboration.”

Bradley H. et al. Translating Research into Practice: Speeding the Adoption of Innovative Health Care Programs. The Commonwealth Fund. July 2004.



Project Information

If you would like further information about our project:

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