Breast Cancer Follow-up Decision Support System (BCC-FSS)

The BCC-FSS executes the modeled clinical guideline based on the patient data to derive suitable follow-up care recommendations. The case is: "A patient who is overweight, complains of fatigue and is experiencing vaginal bleeding in the absence of obvious cause. She has a family history of osteoporosis and is on Aromatase inhibitors. She also wishes to get pregnant and wants to know whether this is a viable option".

Patient Information Interface:
- The physician is presented a set of patient conditions (relevant to the patient profile) to specify the patient profile.
- The physician selects the conditions observed in the patient to generate the current patient profile.

Patient-Specific Recommendation Interface:
- Based on the patient’s profile, the physician is presented a set of patient-specific recommendations.
- By clicking on a proposed recommendation, its description, reasons for selection and related references are displayed.
- The physician can select a recommendation by clicking the “Prescribe” button.
- The physician can write notes about the recommendations in the “Comments” section.

General Recommendation Interface:
- The physician is presented a set of general purpose recommendations relevant to all breast cancer survivors.
- By clicking on a proposed recommendation, its description, reasons for selection and related references are displayed.
- The physician can select a recommendation by clicking the “Prescribe” button.
- The physician can write notes about the recommendations in the “Comments” section.

Concluding Remarks
- This project has demonstrated the potential for:
  - Knowledge Translation from evidence-based clinical guidelines to point-of-care clinical decision support services to assist physicians.
  - Standardization of patient care based on approved clinical guidelines.
  - Access to specialized clinical knowledge (and evidence) for family physicians.
  - Modeling of healthcare knowledge (within guidelines, pathways and protocols) to develop state-of-the-art decision support systems that are based on semantically defined, logically consistent and institution-specific health models.

This project was partially funded by an Innovation Research grant (Nova Scotia Health Research Foundation). Special thanks to Dr. Grunfeld for the guideline and support.