1. **PRACTICE OUTCOME**
   1.1 This document provides evidence informed clinical practice guidelines for practitioners ordering preoperative laboratory tests for adult patients undergoing elective surgery.
   1.2 Pre-operative testing will be based on the proposed surgical procedure and an assessment of the patient’s health status.
   1.3 Use of these standards will enhance patient care by eliminating unnecessary tests and avoiding duplicate tests, and will support the efficient use of existing resources.

2. **BACKGROUND**
   - This guideline was developed as one phase of a provincial initiative to improve the quality and coordination of preoperative care.
   - Currently, there are no region wide standards to guide physicians ordering required preoperative tests.
   - Physicians from Surgery, Anesthesia, and providers from Family Medicine-Primary Care supported the need to develop these standards collaboratively, and formed a clinical group. The group reviewed available clinical evidence and guidelines. For specific tests, consultations with neurology, hematology, and blood conservation were obtained.
   - Consensus on indications for each preoperative lab test were then obtained and developed into a grid (see attached).
   - The attached grid contains the most common indications for all of the commonly ordered tests. There is also a separate legend page so that it can easily be referred to in an exam room or at an administrative assistant’s desk.
   - This information is presented in a format that is adaptable for an electronic health record and complements the current WRHA preoperative assessment form.
   - Feedback on the grid has been received from: Surgery, Anesthesia, and Family Medicine-Primary Care, and from Hematology, Blood Conservation, and Neurology consultants.

3. **GUIDELINES**
   3.1 The grid uses five criteria to stratify patient risk and determine the indicated preoperative tests:
      1. Age
      2. Exercise Tolerance
      3. Medical Co-morbidities
      4. Drug Therapies
      5. Type of Surgery
   3.2 Indications for each preoperative lab test are summarized in the attached grid.
   3.3 Tests are valid for **6 months** provided there has been no interim change in the patient's condition.
   3.4 For patients with complex or uncommon surgical or medical conditions, tests beyond what is suggested in this grid may be appropriate.
   3.5 The grid does **not** apply to the following:
      - pediatric patients (< 16 years old)
      - patients undergoing cardiac surgery at St. Boniface Hospital
3.6 Preoperative histories and physicals are valid for six months, unless there is a change in the patient’s condition.

4. **RESOURCES**
Two page assessment grid is attached to practice guideline (Appendix A).

5. **SOURCE/REFERENCES**

   Fisher, S., Bader, A., & Sweitzer, B. Chapter 34: Preoperative Laboratory and Diagnostic Studies, Miller’s Anesthesia, 7th edition.


   Institute of Health Economics (2007) Routine Preoperative Tests: are they necessary?


6. **PRIMARY AUTHOR**

   **Clinical Group:**
   Lead: Tom Mutter: Medical Director, Quality Assurance, WRHA Department of Anesthesia
   Stephen Kowalski: Head of Health Sciences Centre Department of Anesthesia
   Trevor Lee: Head of St. Boniface Department of Anesthesia
   Claire Dionne: Medical Director of St. Boniface Pre-anesthetic Clinic
   Doug Maquire: Medical Director of Health Sciences Centre Pre-anesthetic Clinic
   Sheldon Permack: Medical Director, WRHA Family Medicine-Primary Care program
   Rebecca Neto: Specialist, WRHA Family Medicine-Primary Care program

   **Consultants:**
   Don Houston: Head, WRHA/ University of Manitoba Section of Hematology
   Brian Muirhead and Susan Kenny: WRHA Blood Conservation
   Yahya Aghakhani: Neurologist, special interest in epilepsy
   Subash Sethi: Co-site Medical Manager, Misericordia Health Centre and Victoria General Hospital

7. **ALTERNATE CONTACT**
   Luis Oppenheimer