PROGNOSIS MODULE
Population-based study of risk and predictors of stroke in the first few hours after TIA

Objectives:

At the end of this module, the learner should be able to:
1. Design a fast-n'-frugal search strategy to identify prognosis studies.
2. Enumerate and conduct the steps to determine the validity of a prognosis studies.
3. Interpret the study findings.
4. Discuss the applicability of the findings to their own practice.

Assignment

To achieve the learning objectives the learner should:
1. Try out the search strategy below for this question and for one other prognostic question they may have.
2. Read the Users' Guide Prognosis chapter.
3. Critically appraise the attached paper.
4. Complete the Prognosis Module worksheet .

Clinical Scenario:

Mrs. Edna Smith is a healthy 70 years old patient in your family practice. You care for her extended family and have known her well for twenty years. She has well-controlled (<140/90) essential hypertension, for which she is on a thiazide diuretic and a calcium channel blocker. She has no target organ damage. She is not diabetic and has no cardiac or peripheral vascular disease. The most recent LDL and HDL cholesterol values were normal without medication. She quit smoking in 1967 with a 3 pack-year history. She has a family history of CAD and stroke. Her father, a heavy smoker, had his first MI at 54 and died of a stroke at 72. Her mother passed away at 79 of a stroke, suffered in hospital after a hip fracture.

Edna presents with concerns for sudden onset of weakness at breakfast this morning. She dropped her tea cup as her cheek and hand became weak. She had trouble speaking. The symptoms lasted for 5 minutes and she was alarmed so she made arrangements to see you.
In the office she is arriving. Her BP is 144/76 and her HR heart rate is 90 and regular. She has normal neurological and cardiovascular examinations.

You are concerned about TIA but do not want to overburden the ER, and it is a three hour drive for your patient in icy winter conditions to reach the next larger ER equipped with imaging. You know you will not be able to get the necessary workup done today as an outpatient. You wonder how time critical is it to complete the evaluation.

As you often do, you invite the patient to take part in a brief search for information; you start with PubMed on your desktop computer. You begin by formulating your question:

P - Patient - 70 year old, female, controlled-hypertension, TIA
I - Time
C - None
O - Time to recurrent TIA or stroke
T - Case-control or Cohort study

In the interests of time, you toggle to PubMed Clinical Queries. You decide the key elements of this question for searching are "transient ischemic attack" AND "predictors" AND "stroke". Introducing these terms on the search box and choosing the clinical query for prognosis studies with high sensitivity you identify the paper by Chandratheva et al. It is available in abstract and free full text form as the fourth hit.

Enclosed Materials:

1. Guyatt G, Roman Jaeschke, Mark Wilson, Victor Montori, and Scott Richardson. What is evidence-based medicine. In Guyatt G, Rennie D, Meade MO, Cook DJ. Users' Guides to the Medical Literature: A Manual for Evidence-based Clinical Practice. 3rd ed. New York, NY: McGraw-Hill; 2015.

   a. Randolph AG, Cook DJ, Guyatt G Prognosis Ch 20, Pgs 421 -430

2. Chandratheva A., et al. Population-based study of risk and predictors of stroke in the first few hours after a TIA. Neurology, 2009 72(22): 1941-7.

3. Worksheet for the evaluation of an article on prognosis.