THERAPY MODULE

Objectives:

At the completion of this unit, participants will be able to critically appraise an article, addressing therapy, using the "Users Guides".

Instructional Objectives:

At the completion of the session you will be able to:

1.   Assess the *validity* of an article on Therapy.
2.   Interpret the *measures of effect* of the intervention for both magnitude, precision, and clinical relevance (e.g. RR, RRR, ARD, NNT, and CI 95% of these measures).
3.   Determine the *applicability* of the results to your patients.
4.   Evaluate the trade-offs between *benefits and harms* of the intervention.

Reference (further reading):

In Guyatt GH, Rennie D, Made MO, Cook DJ, Editors. JAMAevidence User's Guides to the Medical Literature: A Manual for Evidence Based Clinical Practice, 3rd Edition, New York, NY: The McGraw-Hill Companies, Inc. 2015.

Therapy (Randomized Trials)

•   Therapy (Randomized Trials). Chapter 7, pp 59-73.

•   Does Treatment Lower Risk? Understanding the Results. Chapter 9, pp 87-93.

•   Confidence Intervals: Was the study large enough? Chapter 10, pp 95-101.

•   Advanced Topics in risk of bias of therapy trials. Chapter 11, pp 103-188.

Problem Based Educational Strategy

1.   Read the Clinical Scenario.
2.   Compose a well-built clinical (PICO) question about the clinical problem.
3.   Complete a literature search using the search terms from your PICO question.
4.   Read Chapter 7, pgs 59-73) in the Users' Guides to the Medical Literature
5.   Advanced learners may also review chapters 9, 10, and 11 (see Chapter titles above).
6.   Complete the attached Users' Guides to the Medical Literature Worksheet.
7.   Decide what treatment you would recommend for this patient.

<u>Clinical Scenario</u>:

Kate Smith, a 14 month old girl, was recently discharged from hospital following her 1st proven urinary tract infection (UTI). Prior to this, Kate had been well - and was thriving. She presented to ED with high fever, but no focal signs. Bladder tap urine demonstrated pyuria, and grew heavy growth of E.coli. The results of investigations performed following her discharge from hospital are now available.

Her voiding cystourethrogram, shows Grade III Vesico-Ureteral Reflux (VUR), but no signs of any renal scars (on DMSA scan). She is returning to your follow-up clinic tomorrow to obtain the results of these tests, and to discuss with you the appropriate long-term management.

You are aware of the controversy about this problem - either you take a 'watch-and-wait' approach, or commence antibiotic prophylaxis. You have also heard in recent conversations with colleagues about a new, large, published clinical trial on this topic. So, before seeing Kate, you decide to find the article, and read it.

You frame the appropriate PICO question, and using PubMed 'clinical queries', find this recently published trial:

The RIVUR Trial Investigators. "Antimicrobial prophylaxis for children with Vesicureteral Reflux." N Engl J Med (2014) 370: 2367- 76.

Scanning the abstract, it appears highly relevant to Kate, so you decide to critical appraise the article.

After appraising the article, do you recommend antibiotic prophylaxis for Kate?