**EBM SESSION 1: APPRAISING AN ARTICLE ON THERAPY**

**Description**:

This self-instructional module can be completed in 2 hours. It includes a clinical scenario from which the student shall formulate a clinical question. He/she will then appraise the provided article to answer the clinical question arising from the scenario. A critical appraisal of the article will be provided at the end of the first week of the rotation. The student can use this to review his answers to the assignment.

**Educational Goals:**

By the end of the session, the student will be able to:

1. Formulate an answerable clinical question;
2. Assess directness, validity, reliability, applicability and impact to patient care of an article on therapy;
3. Apply the evidence to an individual patient;
4. Understand some basic issues in research design, which are relevant to clinical decision-making.

**ASSIGNMENT:**

Review the provided clinical scenario, read the attached article, critically appraise the article using the attached appraisal form, and come prepared to discuss in the context of the clinical scenario.

**REFERENCE:**

Dans AL, Dans LF, Silvestre MA. Introduction (Chapter 1). In Dans AL, Dans LF, Silvestre, MA (ed). Painless Evidence-Based Medicine. West Sussex, England: John Wiley and Sons, Ltd. 2008.

Dans LF, Alava HA, Dans AL, Padilla BS. Evaluation of Articles on Therapy (Chapter 6). In Dans AL, Dans LF, Silvestre, MA (ed). Painless Evidence-Based Medicine. West Sussex, England: John Wiley and Sons, Ltd. 2008.

**APPRAISING AN ARTICLE ON therapy**

**Clinical Scenario**

During your rotation at the General IM clinic, Mang Tomas, 54/M, consults for his regular check-up for hypertension. He is currently asymptomatic, with controlled blood pressure and blood sugar. Upon discussing plans for management, Mang Tomas asks if he can start taking multivitamis. He said that his daughter sent him a bottle of multivitamins from abroad because she read on the internet that multivitamins prevents cancer. He was concerned that he could be at increased risk for cancer because his father died of colon cancer. Mang Tomas is being treated for hypertension and diabetes at the clinic, and is otherwise asymptomatic. He jogs for at least 30 minutes daily and makes it a point to eat a healthy, well-balanced diet. He works as a field technician for a telecommunications company, is married, with 3 children, all of whom have completed college. He denies any vices.

1. Formulate an answerable clinical question.

|  |  |
| --- | --- |
| **P** |  |
| **E** |  |
| **O** |  |

You tell Mang Tomas that you will look into his concern, and excuse yourself to borrow a laptop from one of the residents. Upon searching PubMed, you find the following article:

*Gaziano JM, Sesso HD, Christen WG, et al. Multivitamins in the Prevention of Cancer in Men. The Physicians’ Health Study II Randomized Controlled Trial. JAMA 2012; 308(18):doi:10.1001/jama2012.14641.*

1. Read the article and…
2. Decide if it provides a direct answer to the clinical question you ask.
3. Appraise validity using the validity guides.
4. Appraise the results of the study
5. Assess its applicability to your specific patient.
6. Calculate patient-specific results.
7. Decide on how you will manage this patient.

**APPRAISAL FORM FOR THERAPY**

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| I. | APPRAISING DIRECTNESS |   |
|   | Does the study provide a direct enough answer to your clinical question in terms of type of patients (P), exposure/ intervention (E) and outcome (O)? |  |
| II. | APPRAISING VALIDITY |   |
| 1. | Were patients randomly assigned to treatment groups? |   |
| 2. | Was allocation concealed?  |   |
| 3. | Were baseline characteristics similar at the start of the trial? |   |
| 4. | Were patients blinded to treatment assignment? |   |
| 5. | Were caregivers blinded to treatment assignment? |   |
| 6. | Were outcome assessors blinded to treatment assignment? |   |
| 7 | Were all patients analyzed in the groups to which they were originally randomized? |   |
| 8 | Was follow-up rate adequate? |   |
| III. | APPRAISING RESULTS |   |
| 1. | How large was the effect of treatment? |   |
| 2. | How precise was the estimate of the treatment effect?  |   |

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| IV. | ASSESSING APPLICABILITY:  |   |
| 1. | Are there biologic issues that may affect applicability of treatment? (Consider the influence of sex, co-morbidity, race, age and pathology) |   |
| 2. | Are there socio-economic issues affecting applicability of treatment? |   |
| V. | INDIVIDUALIZING THE RESULTS:  |   |
| 1. | What is the likely effect of the treatment on your individual patient? (Estimate the individualized NNT for your patient) |   |
| 2. | Would you offer the treatment to your patients? |  |