FOAM Content: How to find and appraise it!

✔ How do I navigate FOAM resources?
  ● Really Simple Syndication (RSS) Feeds
    ○ Feedly, NewsBlur, Inoreader
  ● Search Engines:
    ○ Google FOAM
    ○ Numose
    ○ #FOAMFinder
  ● Twitter ● #FOAMed, #FOAMus, #MedEd, #FOAMtox, #FOAMPed, #emconf
  ● ALiEM Approved Instructional Resources (AIR) Series
  ● Social Media Index (SMi) ● SMI-50

✔ Where are FOAM resources curated?
  ● ALiEM AIR Series
  ● LITFL Review
  ● FOAM SOAR
  ● SAEM SOAR
  ● SonoMojo.org – FOAMus
  ● emDOCs.net EM Educator Series – MedEd
  ● PEM geek

✔ How do I appraise FOAM resources?
  ● Gestalt - What are good markers of quality?
  ● rMETRIC Scoring Tool
    ○ METRIQ 5 and METRIQ 8 scoring tools
  ● ALiEM AIR Tool (revised air took)
  ● Peer reviewed FOAM - Transparency
    ○ Pre publication peer review
    ○ Conflict of Interest
    ○ Post publication peer review (comments)
# Revised METRIC Scoring Tool

<table>
<thead>
<tr>
<th>Questions</th>
<th>Options</th>
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</table>
| Q1: Does the resource provide enough background information to situate the user? | 3 - Yes, the resource provides sufficient background information to situate the user and also directs users to other valuable resources related to the topic.  
1 - No, the information presented within the resource cannot be situated within its broader context, but users are directed to resources with this information.  
0 - No, the information presented within the resource cannot be situated within its broader context without looking up information independently. |
| Q2: Does the resource contain an appropriate amount of information for its length? | 3 - No unnecessary, redundant or missing content, all content was essential  
2 - Some unnecessary, redundant or missing content, but most content was essential  
1 - Lots of unnecessary redundant, or missing content  
0 - Insufficient content |
| Q3: Is the resource well written and formatted? | 3 - The resource is very well written and formatted in a way that optimized and benefits learning.  
2 - The resource is reasonably well written and formatted, but aspects of the organization or presentation are distracting or otherwise detrimental to learning.  
1 - The resource is somewhat well written and formatted, but could benefit from substantive editing (e.g. grammatical errors are seen, or better organized).  
0 - The resource is poorly written and/or formatted and should not be a resource for learning. |
| Q4: Does the resource cite its references? | 3 - Yes, the references are cited, clearly map to specific statements within the resource, and all statements of fact that are not common knowledge are supported with a reference  
2 - Yes, the references are cited and clearly map to specific statements within the resource, but statements of fact that are not common knowledge are made without the support of a reference  
1 - Yes, there are references listed but they do not map to specific statements within the resource  
0 - No references are cited |
| Q5: Is it clear who created the resource and do they have any conflicts of interest? | 3 - Yes, the identity and qualifications of the author are clear and they specify that they have no relevant conflicts of interest  
2 - Yes, the identity and qualifications of the author are clear, but they do not disclose whether they have any conflicts of interest  
1 - Yes, the identity of the author is clear, but they do not list their qualifications or disclose whether they have any conflicts of interest  
0 - No, the author of the resource has significant conflicts of interest or is not clearly identified (e.g. no name or a pseudonym is used) |
| Q6: Are the editorial and pre-publication peer review processes that were used to create the resource clearly outlined? | 3 - Yes, a clear review process is described on the website and it was clearly applied to the resource  
2 - Yes, a clear review process is described on the website, but it was not clear whether it was applied to the resource  
1 - Yes, a review process is mentioned on the website, but it was not clearly described  
0 - No, it is unclear whether or not the website has a review process; or, there is no process |
| Q7: Is there evidence of post-publication commentary on the resource's content by its users? | 3 - Yes, a robust discussion of the resource’s content has occurred that expands upon the content of the resource.  
2 - Yes, some comments have been made on the resource, but a robust discussion about the resource’s content has not occurred.  
1 - There was a mechanism to leave comments but none had been made.  
0 - No, there was no mechanism to leave comments or comments that were present were either unrelated to the post or unprofessional. |

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Revised Approved Instructional Resources (rAIR) Score
An evaluation tool for FOAM resources designed for medical educators

<table>
<thead>
<tr>
<th>Score</th>
<th>BEEM Rater Scale</th>
<th>Content accuracy</th>
<th>Educational Utility</th>
<th>Evidence-based medicine</th>
<th>References</th>
<th>Authorship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How much does this article impact clinical practice?</td>
<td>How concerned are you about the accuracy of this article?</td>
<td>What is the educational value of this article for residents?</td>
<td>Does this article reflect the practice of evidence-based medicine?</td>
<td>Is the literature cited?</td>
<td>Are the authors clearly listed?</td>
</tr>
<tr>
<td>0</td>
<td>Would not change clinical practice</td>
<td>Extremely concerned about inaccuracies</td>
<td>Not at all valuable for residents</td>
<td>Not at all evidenced based</td>
<td>None</td>
<td>The author is named without credentials* OR no author is named OR a pseudonym is used</td>
</tr>
<tr>
<td>1</td>
<td>Would change clinical practice for most clinicians</td>
<td>Somewhat concerned about inaccuracies</td>
<td>Somewhat valuable for residents</td>
<td>Somewhat evidenced based</td>
<td>References are cited</td>
<td>The author is named and credentials* are listed</td>
</tr>
<tr>
<td>2</td>
<td>Would change practice for most clinicians</td>
<td>Not at all concerned about inaccuracies</td>
<td>Extremely valuable for residents</td>
<td>Extremely evidenced based</td>
<td>References are cited inline with the text</td>
<td>The author is named, credentials* are listed, and conflicts of interest are declared</td>
</tr>
</tbody>
</table>

BEEM = Best Evidence in Emergency Medicine  
EBM = Evidence Based Medicine  
*Listed credentials may include a certification (e.g. MD, ABEM, FRCPC), level of training (e.g. Registrar, Postgraduate Year), or relevant position (e.g. Assistant Professor, Director)

Original AIR Scoring Tool
FOAM Content: How to find and appraise it!

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**Tier 1: BEEAM Rater Scale**

<table>
<thead>
<tr>
<th>Score-choose only 1</th>
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<th>Score-choose only 1</th>
<th>Score-choose only 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumimg that the results of this article are valid, how much does this article impact on EM clinical practice?</td>
<td></td>
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</tr>
<tr>
<td>Useless information</td>
<td>1</td>
<td>Yes, many concerns from many inaccuracies</td>
<td>Low value: No valuable pearls</td>
<td>1</td>
<td>Not EBM based, only expert opinion (and thus more biased)</td>
<td>1</td>
</tr>
<tr>
<td>Not really interesting, not really new, changes nothing</td>
<td>2</td>
<td>Yes, a major concern about few inaccuracies</td>
<td>Yes, but there are only a few (1-2) valuable or multiple (&gt;3) less valuable educational pearls</td>
<td>2</td>
<td>Minimally EBM based</td>
<td>2</td>
</tr>
<tr>
<td>Interesting and new, but doesn't change practice</td>
<td>3</td>
<td>Yes, a major concern about few inaccuracies</td>
<td>Yes, but there are only a few (1-2) valuable or multiple (&gt;3) less valuable educational pearls</td>
<td>3</td>
<td>Minimally EBM based</td>
<td>3</td>
</tr>
<tr>
<td>Interesting and new, has the potential to change practice</td>
<td>4</td>
<td>Minimal concerns over minor inaccuracies</td>
<td>Yes, there are several (&gt;3) valuable educational pearls, or a few (1-2) KEY educational pearls that every resident should know before graduating</td>
<td>4</td>
<td>Mostly EBM based</td>
<td>4</td>
</tr>
<tr>
<td>New and important: this would probably change practice for some EPs</td>
<td>5</td>
<td>Minimal concerns over minor inaccuracies</td>
<td>Yes, there are several (&gt;3) valuable educational pearls, or a few (1-2) KEY educational pearls that every resident should know before graduating</td>
<td>5</td>
<td>Mostly EBM based</td>
<td>5</td>
</tr>
<tr>
<td>New and important: this would change practice for most EPs</td>
<td>6</td>
<td>No concerns over inaccuracies</td>
<td>Yes, there are multiple KEY educational pearls that residents should know before graduating</td>
<td>6</td>
<td>Mostly EBM based</td>
<td>6</td>
</tr>
<tr>
<td>This is a “must know” for EPs</td>
<td>7</td>
<td>No concerns over inaccuracies</td>
<td>Yes, there are multiple KEY educational pearls that residents should know before graduating</td>
<td>7</td>
<td>Yes EBM based (unbiased)</td>
<td>7</td>
</tr>
</tbody>
</table>

**Your Score**

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**METRIQ 8 and METRIQ 5**

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**Score Model 1: METRIQ-8 Score**

(Maximum 58 points)

| Q3 | Concise content - Does the resource contain an appropriate amount of information for its length? |
| Q8 | Content Construction - Are the processes (e.g. editorial, peer review, evaluation, etc) that were used to create the resource outlined? |
| Q7 | References - Does the resource cite its references? |
| Q5 | Editorial Process - Is there an editorial process? |
| Q9 | Consistency with citations - Are the resource’s statements consistent with its references? |
| Q10 | Background - Does the resource provide enough background information to situate the learner in the context of prior knowledge? |
| Q11 | Moderation - Are interactions between learners moderated effectively to ensure professional conduct? |
| Q12 | Publisher - Is it clear who published the resource? |

**Score Model 2: METRIQ-5 Score**

(Maximum 35 points)

| C3 | Concise content - Does the resource contain an appropriate amount of information for its length? |
| Q7 | References - Does the resource cite its references? |
| Q10 | Background - Does the resource provide enough background information to situate the learner in the context of prior knowledge? |
| Q11 | Moderation - Are interactions between learners moderated effectively to ensure professional conduct? |
| Q12 | Publisher - Is it clear who published the resource? |