HRP Investigators’ Workshop

The NASA Human Research Wiki – An Online Collaboration Tool

Yael Barr, M.D., M.P.H.¹
Jack Rasbury, M.S.²
Jordan Johnson, B.S.²
Kristina Barsten, B.S.³
Lynn Saile, R.N.²
Sharmi Watkins, M.D., M.P.H.¹

1 - The University of Texas Medical Branch, Galveston, Texas.
2 - Wyle Science, Technology & Engineering Group, Houston, Texas.
3 - Enterprise Advisory Services, Inc., Houston, Texas.

February 14, 2012
Overview

- Purpose of the Human Research Wiki website
- Wiki website goals
- Page creation
- Contributing authors
- Editorial and review process
- Wiki team
- Wiki editorial board
- Demonstration of the wiki’s “Store Front” and “Collaboration” sides
Purpose of the Human Research Wiki

The Exploration Medical Capability (ExMC) element is one of six elements of the Human Research Program (HRP).

ExMC is charged with decreasing the risk of:

“Inability to adequately recognize or treat an ill or injured crew member” for exploration-class missions.

In preparation for exploration-class missions, ExMC has compiled a large evidence base, previously available only to persons within the NASA community.

ExMC has developed the “NASA Human Research Wiki” in an effort to make the ExMC information available to the general public and increase collaboration within and outside of NASA.
The ExMC evidence base is comprised of several types of data, including:

- Information on more than 80 medical conditions which could occur during space flight
  - Derived from several sources
  - Including data on incidence and potential outcomes, as captured in the Integrated Medical Model’s (IMM) Clinical Finding Forms (CliFFs).

- Approximately 25 gap reports
  - Identify any “gaps” in knowledge and/or technology that would need to be addressed in order to provide adequate medical support for these novel missions.
Goals of the Human Research Wiki

• To serve as a repository for medical evidence related to ExMC’s risk

• To facilitate collaboration and knowledge sharing among the different HRP elements

• To provide a platform for allowing external subject matter experts (SMEs) to contribute to the current body of knowledge

• To preserve access control and oversight
  ➢ Only credentialed users can contribute/author material
  ➢ Edits are not visible to the public until approved
  ➢ A peer-review process ensures accuracy and validity of information
Page Creation

• Medical Condition Pages
  – CliFF information ("Incidence and Outcomes" section)
    • Authored, revised, and edited by IMM personnel
  – ExMC information/analysis
    • Authored, revised, and edited by ExMC personnel

• Gap Reports
  • Written by ExMC personnel from the various NASA centers
  • Part of the ExMC TechWatch project
  • Revised and edited by TechWatch Clinical Lead
  • Reviewed by subject matter experts

• All pages reviewed and approved by a 7-member editorial board
Contributing Authors

• Subject matter experts within NASA

• Subject matter experts outside of NASA
  – Two routes
    • SMEs identified and solicited by ExMC
    • SMEs initiate contact with ExMC
Editorial and Review Processes

- Contributors’ credentials and experience verified prior to allowing editorial privileges

- Content added by external contributors will undergo peer review prior to incorporation into the evidence base

- Content will be reviewed on a scheduled basis
# The Wiki Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jack Rasbury</td>
<td>Wiki Project Manager</td>
<td><a href="mailto:jrasbury@wylehou.com">jrasbury@wylehou.com</a></td>
</tr>
<tr>
<td>Yael Barr</td>
<td>Wiki Clinical Lead</td>
<td><a href="mailto:yael.barr-1@nasa.gov">yael.barr-1@nasa.gov</a></td>
</tr>
<tr>
<td>Jordan Johnson</td>
<td>Wiki IT Support</td>
<td><a href="mailto:jjohnson@wylehou.com">jjohnson@wylehou.com</a></td>
</tr>
<tr>
<td>Grandin Bickham</td>
<td>Wiki IT Support</td>
<td><a href="mailto:gbickham@wylehou.com">gbickham@wylehou.com</a></td>
</tr>
<tr>
<td>Lynn Saile</td>
<td>Wiki-IMM Integration Lead</td>
<td><a href="mailto:lsaile@wylehou.com">lsaile@wylehou.com</a></td>
</tr>
<tr>
<td>Kristina Barsten</td>
<td>ExMC Project Manager</td>
<td><a href="mailto:kbarsten@wylehou.com">kbarsten@wylehou.com</a></td>
</tr>
<tr>
<td>Sharmi Watkins</td>
<td>ExMC Element Scientist</td>
<td><a href="mailto:sharmila.watkins@nasa.gov">sharmila.watkins@nasa.gov</a></td>
</tr>
<tr>
<td>Tammie McGrath</td>
<td>ExMC Element Manager</td>
<td><a href="mailto:tammie.l.mcgrath@nasa.gov">tammie.l.mcgrath@nasa.gov</a></td>
</tr>
</tbody>
</table>
# The Wiki’s Editorial Board

<table>
<thead>
<tr>
<th>Board Member Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Craig Kundrot</td>
<td>HRP representative</td>
</tr>
<tr>
<td>2. Eric Kerstman</td>
<td>IMM clinical lead/ IMM wiki section editor</td>
</tr>
<tr>
<td>3. Jeff Smith</td>
<td>Science Management Office representative</td>
</tr>
<tr>
<td>4. Mary Fitts</td>
<td>Evidence Base Working Group and Export control representative</td>
</tr>
<tr>
<td>5. Mary Wear</td>
<td>LSAH representative</td>
</tr>
<tr>
<td>6. Sharmi Watkins</td>
<td>ExMC Element Scientist</td>
</tr>
<tr>
<td>7. Yael Barr</td>
<td>Wiki clinical lead/ Editor-in-Chief</td>
</tr>
</tbody>
</table>
Website Demonstration

- Store Front website:  
  http://humanresearchwiki.jsc.nasa.gov

- Collaboration website:  
  http://humanresearchwiki.jsc.nasa.gov/exmc
Requesting Editorial Access

- Members of NASA’s SLSD –
  Please send us an email to: jsc-human-research-wiki@mail.nasa.gov

- Researchers and other interested parties external to SLSD –
  Please fill and submit the Editorial Access Request Form which may be found on the Wiki’s home page, or here:
Thank You
Backup Slides
Plans for Dissemination

- Emails to SLSD and NSBRI personnel
- JSC Today
- Semantics for internet searches
- Investigator’s Workshop 2012
- AsMA Annual Scientific Meeting 2012
• A Wiki is simply an online collaboration tool

• Basic attributes of a traditional Wiki (e.g. Wikipedia):
  – Easy to access
  – Easy to contribute
    • Easy to create pages
    • Easy to add links to pages
    • Easy to retrieve/compare page revisions
  – Easy for authors to communicate

• For collaboration, all of these attributes are useful
A Wiki is simply an online collaboration tool

Basic attributes of a traditional Wiki (e.g. Wikipedia):
- Easy to access
- Easy to contribute
  - Easy to create pages
  - Easy to add links to pages
  - Easy to retrieve/compare page revisions
- Easy for authors to communicate

For collaboration, all of these attributes are useful
Wiki Basics

• A Wiki is simply an online collaboration tool

• Basic attributes of a traditional Wiki (e.g. Wikipedia):
  – Easy to access
  – Easy to contribute
    • Easy to create pages
    • Easy to add links to pages
    • Easy to retrieve/compare page revisions
  – Easy for authors to communicate

• For collaboration, all of these attributes are useful
A Wiki is simply an online collaboration tool.

Basic attributes of a traditional Wiki (e.g. Wikipedia):
- Easy to access
- Easy to contribute
  - Easy to create pages
  - Easy to add links to pages
  - Easy to retrieve/compare page revisions
- Easy for authors to communicate

For collaboration, all of these attributes are useful.
How is the Human Research Wiki Different?

- Access control and oversight
  - Only credentialed users can contribute/author material
- Peer-review process
  - To ensure the accuracy and validity of information
- Hierarchical structure
  - To facilitate navigation and searching
- A publication process
  - Ability to cite content as with any other journal article