Improving Medical Communication through Wikipedia

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Disclosures

• No relevant financial interests pertaining to the material discussed in the presentation
Agenda

- Brief Overview of Wiki Med
- Wikipedia and Pheochromocytoma
- Data from Pheochromocytoma Update
- CFI: Increasing Medical Student Interest in Endocrinology
- Questions and Comments
MEDADM 8412: Improving Medical Communications through Wikipedia

- Wikipedia is
  - The 5th most popular website globally
  - Reportedly used by over 70% of junior physicians
  - The location of 30,000 medical articles, viewed over 10 million times/day
  - The most popular healthcare site by traffic views, followed closely by the NIH and Web MD

Information provided by the MEDADM 8412 Course Intro at the University of Michigan
Students are encouraged to select “bad” articles in hopes of improving their status

Pheochromocytoma
- Class C
- Low to Mid Importance
Current State of Pheochromocytoma

• Most recent table of contents (9/2020) for the Pheochromocytoma page

• Left (RED)
  • New sub sections not included prior to August 1<sup>st</sup>, 2020

• Right (GREEN)
  • Completely new headings not included prior to August 1<sup>st</sup>, 2020
Current State of Pheochromocytoma

Media [edit]

In July of 2012, an actual pheochromocytoma patient, Tannis Brown, former Vice-President of the PheoPara Troopers, was featured on the Discovery Fit & Health Network program Diagnosis: Dead or Alive. [189] The show highlighted her personal struggle with misdiagnosed disease as many physicians felt her episodic headaches and hypertension (high blood pressure) were related to stress. [190]

Apart from featuring real-life stories of pheochromocytoma patients, this rare tumor has also been featured on primetime medical television dramas as well. In the opening episode of the second season (S2: E1, Acceptance?) of House, Dr. Gregory House (Hugh Laurie) consults on a death row inmate who is later discovered to have pheochromocytoma after he experiences unexplained fits of rage that ended in murder. [191] However, this depiction of a pheochromocytoma patient is factually inaccurate and disturbing. The "adrenaline rush" felt in patients with functionally active tumors is unlikely (if ever) to have been reported to random bouts of violence.

In the seventh and eighth seasons of Greys Anatomy, series regular Dr. Teddy Altman (Kim Raver) finds herself married to a patient (Henry Burton, actor Scott Foley) due to his lack of medical insurance. [192] It is later revealed that he has a Von Hippel-Lindau (VHL) mutation that has resulted in a rare adrenal tumor known as pheochromocytoma. The several series arc was met with varying opinions from the rare disease community. [193] Then executive Director of the VHL Alliance was happy with the portrayal of a VHL patient in mainstream media, but pointed out that of the four scripts she knew of with a VHL patient, three involved a pheochromocytoma, which actually occurs in less than a fifth of all VHL patients. [184][195]

While no patient is actually featured in the episode, in the premier season of Scrubs, the resident physicians are questioned on rounds about the initial test of choice for a pheochromocytoma and the correct pre-operative treatment (which they incorrectly answered as an angiotensin-converting enzyme (ACE) inhibitor, but should be an alpha-adrenoceptor blocker). [196]

Finally, there are many personal stories shared on YouTube of patient journeys with this rare neuroendocrine tumor.
Current State of Pheochromocytoma

A: Axial computed tomography (CT) scan

B: Minimally invasive laparoscopic surgery technique. The surgical team (screen left) works with minimally invasive tools that project the intra-abdominal images onto a screen within the operating room (screen right).

C: Robotic surgery technique. The lead surgeon (screen left) sits at the console, which is completely removed from the operating room and connected to the robotic arms (screen right). The robotic arms are assisted by other surgical staff.

Top: Purple lesions are metastatic disease detected with DOTATATE imaging.
Bottom: Same patient. Purple lesions are metastatic disease detected with FDG PET.
This article has multiple issues. Please help improve it or discuss these issues on the talk page. (Learn how and when to remove [hide]
these template messages)

- This article needs editing for compliance with Wikipedia's Manual of Style. (August 2020)
- This article is written like a manual or guidebook. (August 2020)
- This article needs more medical references for verification or relies too heavily on primary sources. (August 2020)
Capstone for Impact (CFI)

The Capstone for Impact (CFI) is a core graduation requirement. It is a longitudinal opportunity to apply medical research towards delivering a solution to an issue within a real-world setting, and requires sustained self-directed learning in an area of the student’s passion. The capstone consists of a deliverable which varies according to the means by which the student pursues the capstone but which meets all criteria in the CFI milestone checklist. The CFI Approval Committee is listed above along with their contact information. All CFI projects are to be supervised by a CFI Advisor of the students’ choice. Please complete this CFI Project Proposal Form by February 15, 2020. Email Samia Haque if you need more time.

“...longitudinal opportunity…to deliver a solution that requires sustained self-directed learning in an area of the student’s passion”
Increasing Medical Student Interest & Exposure to Endocrine

- Designed a rotating two (2) year curriculum for Fellows
  - Teaching scripts
  - Effective feedback; giving and receiving from med students
  - Working to standardize grading procedures
- Developed a database of Endocrine Attendings research interests and clinic opportunities
- Created a short presentation for the M1 Endocrine Sequence
## Endocrine Faculty Mentors

- **Google Sheet to the Department**
  - Name, E-mail, and Preferred Contact
  - Specific Interests and Specialty Clinics
  - Research Opportunities (Clinical, Basic Science)
- Information is exported to Excel, “locked,” and shared with the M1 class
- Will be updated on yearly basis

<table>
<thead>
<tr>
<th>E-Mail</th>
<th>If &quot;No,&quot; Please Specify How to Contact</th>
<th>Specific Interests in Endocrinology</th>
</tr>
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<tbody>
<tr>
<td><a href="mailto:sjanna@med.umich.edu">sjanna@med.umich.edu</a></td>
<td>neuroendocrinology, endocrine aspects of critical illness, hormo</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:meganhay@med.umich">meganhay@med.umich</a></td>
<td>thyroid cancer outcomes/health services research</td>
<td></td>
</tr>
<tr>
<td><a href="mailto:arthber@med.umich.edu">arthber@med.umich.edu</a> cc: Nicole Miller at <a href="mailto:naplaze@med.umich.edu">naplaze@med.umich.edu</a></td>
<td>obesity, weight management, diabetes</td>
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<tr>
<td><a href="mailto:wherman@med.umich.edu">wherman@med.umich.edu</a> copy to: <a href="mailto:hstites@med.umich.edu">hstites@med.umich.edu</a></td>
<td>diabetes</td>
<td></td>
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<tr>
<td><a href="mailto:reinart@med.umich.edu">reinart@med.umich.edu</a></td>
<td>diabetes, pancreatic islet biology (basic/translational science)</td>
<td></td>
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<tr>
<td><a href="mailto:aturu@umich.edu">aturu@umich.edu</a></td>
<td>adrenal physiology and pathology, biomarker development</td>
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<table>
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<td>pituitary, hormones and behavior, Both</td>
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<tr>
<td>yes, outcomes/GSR</td>
<td>thyroid cancer overdiagnosis and overtreatment</td>
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<tr>
<td>yes</td>
<td>clinical research in weight loss/metabolic research</td>
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<tr>
<td>yes</td>
<td>Clinical and health services research in diabetes incl Clinical and health comorbidities and simulation model services research only</td>
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<tr>
<td>yes</td>
<td>pancreatic islet biology, glucagon</td>
<td>Bench</td>
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<tr>
<td>yes</td>
<td>as in E</td>
<td>Both</td>
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<th>Open to Student Joining in Clinic, Student Preference? (MS-4)</th>
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<tbody>
<tr>
<td>Yes - pituitary</td>
<td>Yes, after internal medicine core clerkship</td>
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<tr>
<td>Yes - thyroid cancer</td>
<td>Yes, but it depends on timing of projects</td>
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<tr>
<td>Yes - Obesity/Endo</td>
<td>Yes</td>
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<tr>
<td>no</td>
<td>yes, MS-4</td>
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<tr>
<td>Yes - adrenal clinic</td>
<td>U-M medical students any level</td>
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<tr>
<td>yes</td>
<td>yes, MS-4</td>
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Information is exported to Excel, “locked,” and shared with the M1 class.
ENROLL IN ADULT ENDOCRINE BRANCH M3/M4 CLINICAL ELECTIVE

- 4 Week Clinical Elective
  - Fulfills 1 of your (4!) required for graduation
- Inpatient Endocrine Consult Experience
- Outpatient Clinic Experience
- Highly flexible to fit your specific interests
- Access to multidisciplinary tumor boards and specialty clinics

- Endocrine Oncology Clinic: Adrenal and Thyroid Neoplasias
- Osteoporosis Clinic
- Post-Bariatric Surgery Clinic
- Podiatry Clinic: the Diabetic Foot
- Pregnancy and Diabetes Care
- FNA Clinic
CAN’T WAIT FOR TWO YEARS?!

- Pick a Specialty
- Find a Mentor
- Develop a Project

The Diabetes, Metabolism, and Endocrinology Faculty want to work with you

Compiled a list of Faculty with willingness to have you shadow (M1) or see patients (M2-M4) in their clinics

Available research projects within the department in need of medical students

Know Endocrinology is for you? Have a specific interest or project idea and don’t know where to start?

- Endocrine Fellowship Director, Dr. Tobi Else is here to help!
- telse@med.umich.edu
Acknowledgments

- Dr. Daniel Shumer
- Mentors
  - Drs. Tobias Else and Karel Pacak
- Wikipedia and Capstone for Impact
  Team Leads here at Michigan
Questions?

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