Chapter 6. Poster Presentation

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"Our work is the presentation of our capabilities." – Edward Gibbon

> Objective: To identify the key components of a successful poster presentation and teach the learner how to set goals for presentation types, locations, and submission categories with emphasis on knowing submission deadlines, unique requirements, and abstract grading criteria allowing the learner to work towards being accepted and successfully presenting at a research conference.

Why should you present at medical conferences?

A manuscript can only be published in a peer-reviewed medical journal once, but it may be presented at numerous conferences, allowing for increased exposure of your work. Furthermore, journals accept only completed works while many conferences allow presentations of "works in progress" (i.e. incomplete or on-going projects). Initially, novice authors may feel more comfortable presenting a single poster together; however, as one becomes more experienced, it has been my experience that attending conferences alone and presenting solo has offered more opportunities to network with other attendees. This also allows for the team as a whole to save money while still getting the desired exposure level. Besides networking opportunities, contacts made at conferences tend to offer novel ideas in reference to your scholarship that were not previously considered. Lastly, presenters may receive further offers to present at other conferences – both national and international – or publication suggestions by influential attendees.

Where to start

Pick a conference from the poster board maintained by your Resident Research Coordinator (see Chapter 2). For first-time presenters, local and regional conferences are great places to start. Those who are more ambitious or more experienced may decide to aim for national or international conferences as they offer the greatest prestige.

Once you have decided where you would like to submit your work, review the abstract format, grading criteria, and preferred submission categories (i.e. by students/residents, unpublished, case reports vs. original research vs. process improvement, multicenter projects) for the specific conference. Standard sections for the abstract include: Background, Methods, Results, and Discussion/Conclusion. Abstract submissions tend to be 100-300 words and do not include graphs, photos, or sources. Review the abstract yourself and have another experienced individual do so as well in order to find any last minute errors or offer final suggestions. Of note, most conferences pick poster presentations based the abstract alone without ever seeing an actual

poster. The conference organization should contact you within weeks to months (depending on the conference) concerning your abstract submission acceptance or denial.

Once accepted, the next step is to create the poster itself. Visit the conference website again and find out the correct poster size. In the US, most locations accept 4 feet wide x 3 feet tall, but international and local conferences may have different dimensions. Standard sections for the poster mirror those of the abstract: Background, Methods, Results (to include graphs and photos), and Discussion/Conclusion. Sometimes separate section for sources and contact information are included as well. Unlike written manuscripts that contain all of the minute details, posters only highlight key points of the scholarly activity. The reader should be able to get a basic understanding of what occurred in your project and why it is important (i.e. why should he/she care?) Similar to PowerPoint ® slides, limit your words and the number of lines used. Too many words makes the poster look cluttered and can be confusing whereas pictures and a title in large font tend to draw people towards your poster. Ensure that attendees can read your information clearly from 3-6 feet away. Another tool to focus the reader is to consider highlighting words, numbers, or figures that you will discuss in any oral presentation in order to better tie your talk to poster. This also serves to focus the reader to the key points in the poster. Do not forget that the poster should augment your presentation. *Don't read off of poster!* Lastly, it is recommended that you bring business cards and 8.5"x11" copies of the poster for your guests.

Where should you print your poster? Luckily, most academic institutions have print shops that will make the poster free of charge. If this is not available, printing shops in the community can be found and multiple locations in most areas. Finally, online stores like Zazzle.com or Shutterfly.com will print and deliver your posters for a reasonable price.

Make sure you understand how you are expected to hang your poster. The two most common methods are push-pins on a board or Velcro. The veteran presenter will often bring a handful of push-pins, 8 2-inch Velcro strips (these are pre-packaged, and have self-adhesive on the backs of each side, allowing you to hang your poster on virtually any flat surface) and a roll of duct tape just to cover all bases.

How to make your poster stand out

With so many posters, how can you make yours stand out among the crowd? Some potential suggestions include:

- Use a central picture/photo and outline that image with the poster's text.

- Use a large singular background photo or watermark. This offers a distinguishable image from a distance, which may perk curiosity and draw them to your poster. Ensure that those who are drawn in by the photo at a distance will still be able to read the poster's text when viewed from a closer distance.

- Place pictures/graphs in middle line with lines near the left and right borders – allowing the reader to focus on the images

- Most posters will have 3-4 columns, with 0-1 images per column. Colors should have good contrast and avoid red and green (15% of people have some degree of red/green color blindness). Up to four references can fit comfortably on most posters; lengthy reference lists take up too much room. If you choose to not list references, have a printed list of references available. Most conferences will have previous winning posters available to reference as this can help choose the style of your poster.

-Wear something different! Uniformed service members such as military, police, etc. can show off their uniform. While at an international conference, you can wear clothing or accessories that represent your country. Additionally presenters can set up additional pieces of "flair" to their presentations by including flags, candy, portable videos, or small "knick-knack" gifts.

*Image courtesy of Dr. Hoedebecke

At the WONCA World Council in Prague, Czech Republic. Notice the great set up by our New Zealand colleagues. Their shirts match their poster. They are also representing their country with the "All Blacks" headbands/wristband, 2 flags above the poster, and the lanyards that they handed out to attendees. All of these things made this presentation one of the most interesting that I have ever seen!

Family Medicine Organizations with Poster Presentations

(NOT all-inclusive)

WONCA (World Organization of Family Doctors)

WONCA Polaris (North American Young Doctors Movement)

American Academy of Family Physicians (AAFP) national and state chapters

Society of Teachers of Family Medicine (STFM)

NAPCRG (North American Primary Care Research Group)

American Osteopathic Association

American College of Sports Medicine

Canadian Family Medicine Forum (FMF)

Summary Points

- ❖ Presenting your scholarly works in poster format allows the learner to have increased networking and exposure to public speaking, new and novel ideas about their research suggested by people who view their work, and additional offers for future presentations allowing the learner to further the dissemination of their ideas.
- ❖ Obtain knowledge about the location, abstract due date, and submission categories well in advance to the conference you wish to attend.
- ❖ Once accepted to a conference, confirm the poster size and dimensions required by that conference.
- ❖ Work to make sure that your poster stands out using methods such as a central picture/photo, background photos, or wearing something a little different.

References

Erren TC, Bourne PE. Ten Simple Rules for a Good Poster Presentation. *PLoS Computational Biology.* 2007;3(5):e102.

(read it at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1876493/)

Hartigan L, Mone F, Higgin Mary. How to prepare an effective research poster. *BMJ Careers*. http://careers.bmj.com/careers/advice/How_to_prepare_an_effective_research_poster (Last accessed 7 July 2017.)

How to make a Poster Presentation

For this recipe you will need:

- ❖ *A Case or a scholarly project (this can be defined in many ways)*
- ❖ *A conference at which you wish to present*
- ❖ *The conference's specific directions for presentation*

Step 1: Determine what your institutions poster printing capabilities are. Find out if there is funding set aside for scholarly activity or if you are going to have to pay for your poster yourself. Getting to go to a big conference in a snazzy city can be totally worth it ;), but it is nice to know about the expense ahead of time. (You can usually ask your faculty or resident research coordinator.)

Step 2: Decide the conference at which you wish to present.

Step 3: Go to the official website and download their directions for presentation. Most sites will require a submission of an abstract prior to acceptance for presentation.

Step 4: Read the abstract format and grading criteria. It is VERY important that your abstract match their grading criteria. Many wonderful ideas have been turned down because the directions are not followed.

Step 5: Submit your abstract. The deadlines for abstracts are almost always absolute. Make sure you know the deadline ahead of time. It is usually at least 6 months prior to the time of presentation.

Step 6: Get Accepted. YAY!! Go back to the website and find the poster directions.

Step 7: Determine if your institutions public affairs office has a specific layout that they prefer to be used. In addition to these being a wonderful starting point, they are usually designed by people who have degrees in art and advertising and can be very appealing.

Step 8: Make sure that your poster is going to be printed prior to your presentation. Do not put this off to the last minute! It can cause a great deal of stress that you can easily avoid by doing it early.

Step 9: Present the poster at a conference. Have fun and network!

Sample poster

A Life Saving Near – Drowning
LT Patricia Reichert, DO
Naval Hospital Jacksonville, Florida

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Naval Hospital Jacksonville, Florida

NAVY MEDICINE — World Class Care...Anytime, Anywhere

BACKGROUND

A near – drowning in an otherwise healthy individual should prompt evaluation of underlying causes.

Causes to consider include head trauma, cervical spine injury, arrhythmia, seizure, baric injury, hypoglycemia, syncope, toxins, suicide or homicide, and marine envenomation.[1]

CASE

A 24 year old petty officer was tubing behind a friend's boat, when he suddenly fell off.

Concern started when friends noticed the young male made no effort to swim, nor keep his face out of water. He was cited to be "bobbing" and "spitting water out of his mouth," "looking disoriented." A life vest was keeping him above water. Initial assessment in the water noted a weak, thready pulse and agonal respirations.

He lost his pulse and respirations on the boat ride to shore and CPR was initiated. An AED detected a shockable rhythm; 2 subsequent shocks were delivered. CPR was continued during transport to the ED.

TREATMENT/COURSE

•Upon arrival to the ED the patient was comatose, but breathing spontaneously. Cardiac monitoring revealed atrial flutter

•CT of the head, cervical, thoracic and lumbar spine were unremarkable.

•UDOA and ethanol level were negative for toxins

•A spot glucose was 217

•The patient was intubated for airway protection and admitted to the ICU

•Due to atrial flutter with RVR and hypotension, patient was deemed unstable and a DC cardioversion performed - NSR was restored

•The patient was extubated on day 2

•Neurological assessment revealed no deficits with the exception of persistent amnesia for the event

•An EEG was unremarkable

•The patient was discharged on day 5 with Toprol XL and aspirin

RESULTS/DISCUSSION

• Following discharge, potential neurological and cardiac causes were sought out

•A normal physical exam, EEG and MRI revealed no obvious neurologic cause

•Sudden cardiac arrest was evaluated with a cardiac MRI, ambulatory telemetry, CT angiography, EP interrogation and implantable loop monitoring – all were unremarkable

•Interrogation of the AED at the initial scene reported ventricular fibrillation
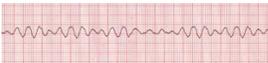
•A sudden cardiac arrest genetics panel found the patient heterozygous for congenital polymorphic ventricular tachycardia (CPVT)

•Definitive treatment involved placement of an ICD, and the patient will continue on a beta blocker lifelong

SCHOLARLY QUESTIONS

•When does a cardiology sudden death workup have to be initiated in near drowning?

•Is testing now indicated for his 3 year old son?

CONCLUSIONS

• The above case seeks to demonstrate although zebras are rare, they are still out there

• In a drowning or near drowning the possibility of head trauma, cervical spine injury, arrhythmia, seizure, baric injury, hypoglycemia, syncope, and toxins should all be evaluated

• For those found to have a cardiac cause for an arrhythmia, ICD placement can be lifesaving

REFERENCES

1. Cantwell, Patricia. (2006). Drowning. Medscape. Retrieved Aug 29, 2012.
   http://emedicine.medscape.com/article/772753-overview

*Image courtesy of Dr. Lennon