# DISCOVERY



A newsletter brought to you by the Office of Research, PCS

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## Meet the Expert



#### Blurb:

This issue we interview Nick Berte, MSN, RN the Research Program Manager with the Office of Research, Patient Care Services (ORPCS). Click here to learn more about Nick's unique role and why he moved from ICU nursing to supporting research and clinical trials.

## Web Article:

Nick Berte, MSN, RN has worked with Stanford since 2013. We interview Nick to better understand his role with the research department and his critical bridging of research between the School of Medicine and Stanford Hospital.

QUESTION: Can you explain your current role with the Office of Research?

**ANSWER:** Thank you for giving me the opportunity to talk about this important role in the Office of Research Patient Care Services (ORPCS). The responsibilities of the Research Program Manager are varied. In addition to managing the day to day operations of the office, I serve as a liaison and envoy to the School of Medicine research staff and negotiate research services on behalf of Stanford Health Care (SHC). In this capacity, I develop research budgets, ensure adherence to quality, compliance, patient safety standards, and collaborate in research planning activities. I also serve as a clinical research expert to provide guidance and education for implementation of projects, collaborate with all areas of patient care services, provide research training and education, represent ORPCS to internal and external committees, and ensure regulatory compliance.

QUESTION: What inspired your transition from an ICU nurse into working full-time in research?

**ANSWER:** I have always been passionate about both critical care nursing and research. Both have intertwined themselves in my education and career and presented themselves in different ways over the years. For me, a pivotal moment that drove my decision to transition to clinical research was learning

about the varied roles that nurses play in clinical research trials. Not only do nurses conduct their own trials, but they also play an important part in facilitating, conducting, ensuring safety, and serving as patient care experts in clinical trials across the spectrum of health research. Knowing that I could practice nursing in a way that generates new knowledge and potentially improves the lives of many inspired me to explore opportunities in clinical research.

**QUESTION**: How has your role evolved over the last several years? What departments do you work with at Stanford?

**ANSWER:** As the Office of Research has expanded, so has my role. When I first started in 2016, we were just beginning to establish standardized ways to provide services and ensure successful implementation of projects. Today we serve a robust spectrum of clients and provide full-scale research services. The ORPCS works across the health care enterprise and connects with almost all SHC departments.

QUESTION: What is your involvement with the School of Medicine (SoM) clinical trials?

**ANSWER:** One of my true passions is working with clinical trials. My involvement in these research studies, however, drastically varies depending on the requirements of the individual project. Typically, I help physician researchers assess feasibility, identify barriers to implementation, identify potential risks to patients, staff, and the organization. Additionally, I develop research budgets, allocate SHC resources, connect various SHC service lines or departments with the study team, negotiate SHC services, ensure appropriate staff education and staff ratios, review facility capabilities with sponsors, and ensure compliance to research regulation. In short, my role is to act on the behalf of SHC when clinical trials are implemented in SHC spaces.

QUESTION: How do you disseminate knowledge about clinical trials to nursing?

**ANSWER:** Many of the clinical trials that I work with have very small enrollment targets meaning there will be very few patients seen for that specific trial at SHC. In some cases, trials may need as few as 1-10 patients over two years. Because of the low enrollment goals and large quantity of studies, I help develop individualized dissemination plans for each trial that target only the clinical spaces that the patients interact with. Generally, I provide a study summary to the unit/department leadership team that can be later disseminated to the staff. In other cases, just-in-time education is provided only to the staff caring for the patient.

QUESTION: Can you describe your experiences with clinical trials and the role you play with nurses?

**ANSWER:** I have had a very positive experience working with clinical trials and nurses at SHC. As we continue to advance health care research, we will see clinical trials that are more complex and require more inpatient time. Because of this, we have to both assess needs and move to embrace the varied needs of these trials in our clinical space.

QUESTION: Is there anything else you want to share about yourself to our nurses?

**ANSWER:** I want all staff at SHC to know that they can always reach out to our team at <u>research@stanfordhealthcare.org</u> for any research related questions. The Office of Research offers a wide breadth of research related services and we are always happy to assist in any way we can.

# <u>Research</u>

Stanford's Emergency Department Nurses Improve Care for Older Patients Through Rigorous Inquiry



## Blurb:

This article describes the journey of Stanford Hospital to gain a Geriatric Emergency Department Accreditation and improve care for its older patients. It focuses on the role that nurse play in improving quality of geriatric care through rigorous quality improvement and research. Click here to read more on this topic.

## Web Article: Stanford's Emergency Department Nurses Improve Care for Older Patients Through Rigorous Inquiry

In his work as an emergency critical care RN, **Chris Cinkowski** noticed that many of the older patients presenting to Stanford's Emergency Department (ED) had complex social and physical needs that were challenging to address. He thought "If only there was a way to identify high-risk geriatric patients earlier in their admission, then the clinical team would start the process of the transition back to health from the very beginning of their stay." Chris wanted to make sure that any changes his team adopted would have a positive measurable impact on the health of his older patients.

## **Geriatric ED Accreditation**

Chris was not alone in his thinking. Around the country, healthcare systems are beginning to transform their care processes to accommodate the growing numbers of seniors presenting to the ED.

Interdisciplinary effort is required to provide quality care for older patients with multiple chronic conditions, frailty, polypharmacy, and social needs. Since the ED is the first point of entry into the health system for many older patients, hospitals focus on making it a "senior friendly" environment.

To support this goal, the American College of Emergency Physicians launched the **Geriatric Emergency Department Accreditation (GEDA)** program in 2018. This promotes a culture of care tailored to the specific needs of older adults in the ED through enhanced staffing and education, geriatric-focused policies and protocols, quality improvement and metrics, and optimal preparation of the physical environment. The accreditation is stratified into 3 levels, with Level 1 being the highest level. Geriatricfocused EDs have shown better patient outcomes, which positively impact hospitals, providers, family members and the local community.

Specialized equipment, staffing and physical modifications to the ED require resources and leadership support on multiple levels. However, some changes can be implemented more easily, including training existing staff in geriatric competencies and modifying the workflows to include geriatric assessments and interventions.

## Transforming the Stanford ED

Stanford Health Care recognizes the importance of GEDA to demonstrate the quality care it offers to seniors in the surrounding community. SHC had over 75,000 emergency department visits in fiscal year 2018 and 22% of patients were over the age of 65. The Stanford ED currently has Level 3 GEDA certification but because the volume of geriatric patients is growing, it began an initiative to obtain Level 2 accreditation.

A large interdisciplinary team of ED clinicians, including pharmacists, registered nurses, rehabilitation therapists, and physicians, have created a plan for interventions to improve the care for older patients. Physical therapists are developing an early mobilization and fall prevention program. Pharmacists are working on a medication reconciliation pathway to reduce the number of inappropriate medications for the elderly. Social workers and case managers are looking at strengthening the elder abuse reporting and transitional care pathway. These interventions are vital to have a sizable impact on the diverse needs of older patients presenting to the ED.

For example, delirium is present in 10-31% of older adults at hospital admission, making it a significant health issue. Individuals with delirium and those at risk are often not identified early in their emergency department stay, and opportunities for prevention and early intervention are missed. Because nurses spend more direct care time with older patients, they can assess for sudden changes in status and provide non-pharmacological interventions. One of the goals for the level 2 GEDA accreditation to promote early identification of older adults who already have delirium and identify elders at risk for developing it, using interventions that can be implemented by nurses.

## Geriatric Training for Nurses in the ED

To tackle this issue, **Chris Cinkowski** worked with Assistant Patient Care Manager, **Hannah McClellen**, to develop a quality improvement initiative to rapidly identify delirium among geriatric patients. They developed a new care pathway where nurses use the Confusion Assessment Method (CAM) and Six Item Screen (SIS) exams as part of the primary assessment of every patient 65+ presenting to the ED, followed by non-pharmacological interventions for patients that screen positive.

Chris and Hannah partnered with nursing education to develop immersive training that increases both knowledge and empathy for the staff. Approximately 250 RNs working in Stanford emergency department will go through the training assessment with the CAM. First, nurses will view one of three virtual reality scenarios in which they will observe what it is like to live with dementia in the community setting. The second modality is an in-person training session that focuses on three aspects of delirium and cognitive impairment: Importance, Screening and Documentation, and Interventions. However, culture change does not end with education, and there are multiple steps to ensuring that nurses will continue to perform these assessments.

## **Rigorous Evaluation of New Care Pathway**

It is challenging to introduce a new care pathway in an already busy work environment like the ED. Barriers to timely screening include time constraints, competing priorities and not enough time to fully form the habit of screening each patient. That is why Chris and his team partnered with **Maria Yefimova** PhD, RN from the **Office of Research, Patient Care Services** to develop a comprehensive evaluation plan to make sure this new practice is sustained. They worked together to develop an implementation strategy that enhanced education with continuous positive feedback to ED nurses on their performance. It was also important to select measurable process and outcome measures to monitor progress as well as to track barriers or facilitators of success for this project.

To evaluate the effectiveness of the new training and care pathway, nurses will receive a pre-test prior to completing the educational session and a post-test 3 months after their completion to evaluate knowledge retention. Reminders at daily huddles during and after the intervention period (3 months) will focus on the new expectation that nurses complete the exam during their initial assessment or before departure from the ED. This will be included in the daily huddles every other week and talked about at shift change by the nurse manager. These huddles will provide opportunity for feedback on feasibility, barriers, and opportunities to improve the process. The team will also measure the effect of this intervention on referral to ancillary services and hospital length of stay for all patients over the age of 65. This will help determine the effect on patient outcomes and get more buy-in from leadership for other GEDA interventions.

## Conclusion

Nurses are critical components in a large system transformation like the Geriatric Emergency Department Accreditation. When asked what parts of the GEDA process he enjoys best, Chris says "It has been a joy to work with multi-disciplinary teams to see everyone's passion for geriatrics and learn what each role is already doing for this population at Stanford. It has also been amazing to see the enthusiasm for the process ahead." Chris offers advice for nurses looking to participate in research or QI to stay observant in your daily work, look for something you are passionate about, and read the current literature on the topic. Once you have an idea, find partners that are just as passionate as you. Good quality improvement or research is about the team, with each member contributing to sculpt the final product.

#### Article By: Maria Yefimova

**Education** 



#### Blurb:

This article provides information about the practice of *predatory publishing* where authors may inadvertently pay a fee to publish on a website that does not have academic credibility. Click here to read more on this topic.

## Web Article:

## PREDATORY PUBLISHING

Getting a paper published in a journal is an exciting professional milestone. In theory, it should be a straightforward process: the author selects the journal, writes the paper and submits! Unfortunately, the reality can be more complicated with hidden pitfalls depending on the selected publisher.

The aim of this article is to provide information about the practice of *predatory publishing* which results in paying a fee and publishing on a website that does not have academic credibility. To put *predatory publishing* in context, this article also provides some brief background on the different publishing options available today (traditional print, open access, hybrid access) and provides some

suggestions about how to identify a predatory publishing website/email /journal, versus a legitimate site for publishing.

#### BACKGROUND

**Traditional Print Publishing**: Before 2000, the primary academic publishing mechanism for a research study or a quality improvement (QI) project was to publish in a printed journal. The author did not pay any fees and the journal covered the publication costs from subscriptions paid by academic libraries and individual subscribers. This system had positive and negative features. On the positive side, there were no costs for the authors of the paper and the journal handled the peer review process. On the negative side, it was competitive to get published because there were fewer journals and manuscripts were often not widely distributed, being available mostly to subscribers.

**Open Access Publishing**: With the omnipresence of the Internet and powerful search engines, many authors wanted greater exposure for their academic work. Additionally, researchers challenged the monopoly of the print subscription model and suggested a new framework called *Open Access* publishing.

Under the Open Access model, it is the authors of the paper that pay a fee to have their paper published. For first-world countries, such as the United States, Canada, Australia and Europe the fees can range from \$1,000 to \$5000 per manuscript depending on the journal. Some journals have lower fee-structures for third world countries. For this fee, the journal covers the peer-review process, and publishes the paper online so that it is findable and sharable by anyone with a computer or smart phone. Many Open Access journals use a rigorous peer review process and publish only the articles that meets their publishing standards.

**Hybrid Access Publishing**: A third model is a journal that has traditional print publishing model but also offers an open access option where a fee is paid by the authors. In this case the article is immediately findable online and is also in print.

#### PREDATORY PUBLISHING

**Follow the Money**: Unfortunately, the rise of the Open Access publishing model - where the authors paid a fee to have their work published - also created a business opportunity for scammers attracted by the fees paid by the authors. The scammers create websites with journal names that look very similar to a legitimate publisher. The unsuspecting author pays the fee and uploads the manuscript. However, because the content is not peer-reviewed and is not indexed in the major academic indexes (PubMed, CINAHL, Scopus, and others) the publication does not count toward academic tenure. Another problem is that once the manuscript is available online, the author will not be able to resubmit to a legitimate journal. The lack of rigorous peer review is a major reason predatory publisher journals are not indexed.

**Blacklists and Whitelists**: Predatory publishers will create a website that mimics another wellknow or legitimate website claiming rapid publication and open access, and then send emails and texts to encourage authors to submit to their site. This practice of creating a website to upload manuscripts is not illegal. However, it is unethical if the purpose is to deceive a naive author into handing over payment and their manuscript without the benefit of academic review.

To advertise this problem, Jeffrey Beall, an academic librarian working at the University of Colorado, started a blog that developed into an Internet "blacklist" of *potentially predatory open access* journals in 2008. Beale coined the term *predatory publishing* in 2010. Beall's list was influential and was used by many authors to decide where to publish their work. Some universities used Beall's list to review academic publications and did not count any publications from journals on the list for tenure review. Beale's list became controversial with supporters and detractors. The list was abruptly taken offline in January 2017 after several publishers threatened legal action. An achieved list of Beall-identified *potentially predatory open access* journals is available at <u>https://beallslist.weebly.com.</u>

Lars Bjørnshauge, an academic librarian from Lund University, Sweden, took a slightly different approach. Bjørnshauge started a "whitelist" of acceptable journals called the Directory of Open Access Journals (DOAJ). The DOAJ remains very active and has thousands of journals listed on their website (<u>https://doaj.org</u>). The DOAJ describes itself as a "community curated online directory."

**Are Lists of Predatory Journals Accurate?** John Bohannon, a journalist for the prestigious print/online journal *Science*, investigated whether the claims of predatory publishing were true. In 2013, Bohannon tested the accuracy of Beall's list and the DOAJ list by selecting 304 open-access publishers from both lists that he considered suspect: 121 came from Beall's list, 167 came from the DOAJ list, and 16 were on both lists. Over 8 months (January – August 2013), different versions of a spoof scientific paper were submitted for publication to the 304 journals at a rate of about 10 per week.

- Beall's-list journals that reviewed the spoof manuscript had an 82% acceptance rate and 18% appropriately rejected the spoof paper.
- DOAJ-list journals that reviewed the spoof manuscript had a 45% acceptance rate, while 55% appropriately rejected the spoof paper.

These results show that neither list was perfect at identifying a *predatory publisher*. Therefore, authors need to be simultaneously knowledgeable and wary before submitting a manuscript. Bohannon has provided links to the publishers, papers, and correspondence (<u>http://scim.ag/OA-Sting</u>), and published an open access paper that describes his methodology and results (<u>https://science.sciencemag.org/content/342/6154/60.full</u>).

**Recognizing a Predatory Publishing Website / Email / Journal**: Using the criteria developed by Beall, DOAJ, Bohannon and others, the following features may help authors to identify a potentially predatory publishing website or journal.

## Journal Indexing

- Journal is not indexed in PubMed, CINAHL or Scopus (relevant for healthcare)
- Journal website fraudulently claims to be indexed when it is not
- Journal website claims a high impact factor when this is not correct

## Journal Titles and Editorial Boards

- Journal title contains "American Journal of ....." Or "Canadian Journal of ....." but the website, editorial board members and publisher are not based in North America
- Journal has the title "International journal of....." but the editorial board members are from a single country or geographical area without international members
- Multiple journal titles in unrelated specialties have the same editorial board members
- Journal titles mimic legitimate journal titles and websites
- The publisher is also the editor-in-chief
- The academic credentials of the editor and editorial board members are not listed

## Grammar and Spelling Errors

• Website or emails have English language spelling or grammatical errors

## Peer review

• Journal does not have a peer review process

## **Digital preservation**

• Journal does not have a mechanism for digital preservation of published papers

## Submission Fee versus Publication Fee

• The publisher requires a payment for a "submission fee" or "handling fee" when normally payment is requested only when the manuscript is accepted for publication

## Spam Email to Solicit Publications

- Excessive spam emails with requests for publications
- The publisher's email address ends in @gmail.com or @yahoo.com, or similar

Another option is to use the free "Journal Evaluation Tool" developed by librarians from Loyola Marymount University and Loyola Law School. This tool is available for download at: <u>https://digitalcommons.lmu.edu/cgi/viewcontent.cgi?article=1041&context=librarian\_pubs</u>

## CONCLUSION

The issue of *predatory open access publishing* remains controversial. What is certain is that *Open Access* publishing is here to stay and that it is essential for all authors to have accurate information about the quality and reputation of a journal before submitting a manuscript. The DOAJ list is a helpful starting point but because new predatory publisher websites and journals spring-up all the time. However, it is important to look beyond the published lists and to use the criteria above to verify the quality and track record of any journal before submission.

Article By: Mary E. Lough

## <u>Spotlight</u>

## **Big Data in Precision Health Conference**



#### PREDICT. PREVENT. CURE. PRECISELY.

#### Blurb:

This article highlights a recent conference held here at Stanford, Big Data in Precision Medicine. We highlight some key concepts gained from the conference, and the need to be aware of how big data is changing the healthcare field. Click here to read more on this topic.

#### Web Article:

Since the advent of electronic health records (EHR), the health care industry has been drowning in patient data. There is an acronym that describes health care data well: "DRIP: Data Rich, Information Poor". We have all this data for a patient, but it is near impossible to put all of it together with a detailed history to understand the underlying cause of the problem or even predict the length of stay. Additionally, with the advances in science and the understanding that every person is different, medical treatment can now be targeted to a specific person.

Recently, Stanford University hosted a 2-day annual conference entitled, *The Big Data in Precision Health Conference*. It brought together members of the tech industry, scientists, and health care providers to talk about the advances being made through partnerships between health care and tech. There were panels of doctors, pharmacists, data scientists, and computer scientists discussing how using machine learning is helping better identify, diagnose, and even predict clinical outcomes.

Jeff Dean, a Senior Fellow at Google, was a keynote speaker who shared some projects he and his team (Google Brain) are working on by partnering with different health systems. One of the projects discussed was a method of machine learning, called Deep Learning, being able to better predict length of stay, mortality, and readmissions vs the traditional clinical model with all the EHR data<sup>1</sup>. He also highlighted the variability with reading patient images due to the expertise and background of the physician reading them.

Nurses need to be aware of all the up and coming changes in the digital world as this will influence our practice. Also, we need to be mindful on how we can help influence the development of new technologies. Patricia Brennan who is a nurse and the Director of the National Library of Medicine was the lead author on a paper entitled, "Nursing Needs Big Data and Big Data Needs Nursing." In that paper, she highlights why nurses need to participate in understanding big data and the roles nurses can play<sup>2</sup>.

Consider attending next year's conference. You can go to their web page (<u>http://bigdata.stanford.edu/</u>) to stay up to date on next year's conference. Additionally, on their website they have videos of previous

presentations, and this year's presentations will be up soon. If you want to learn more about machine learning, Stanford University has a free online course available on Coursera (<u>https://www.coursera.org/</u>).

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Article By: Monique Bouvier