

THE ECOSYSTEM OF EVIDENCE

Navigating the future
of the ecosystem of evidence

Artificial intelligence and digital transformation
in research and healthcare

11th EBHC International Conference
Taormina, 21st – 24th October 2026

#EBHC2026

Structure and Outcomes of an Evidence-Based Medicine Educational Initiative

The Evidence Based Medicine Champion Program

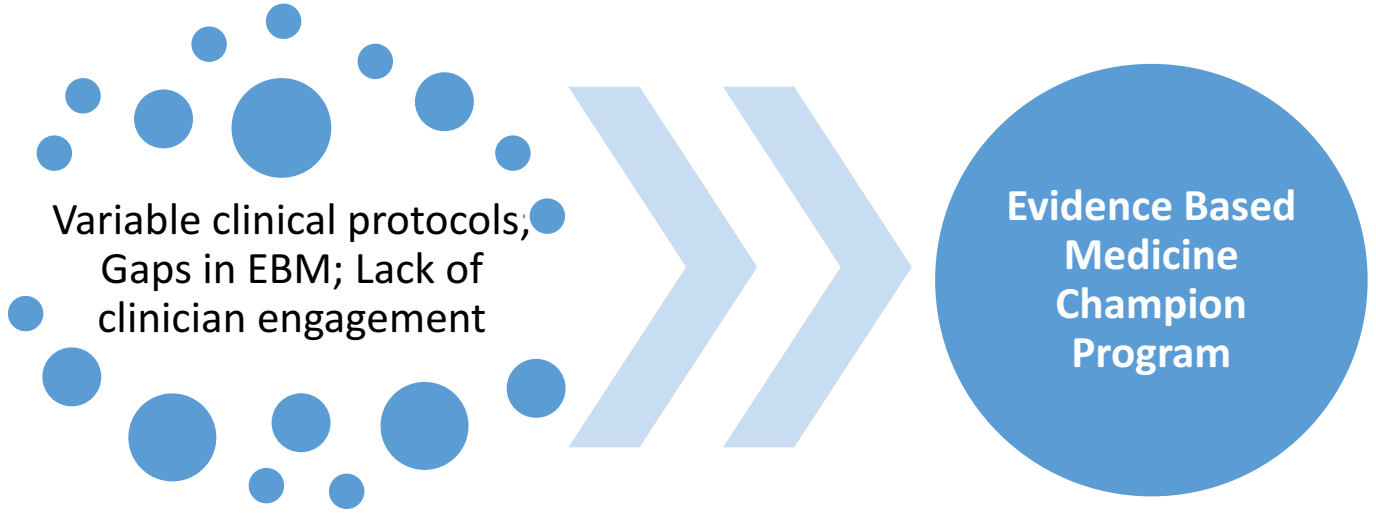
Bronwyn Southwell, MD
University of Minnesota

30th 1996-2026 GIMBE EVIDENCE FOR HEALTH

Background

Evidence Based Medicine Champion Program

- Collaboration between the University of Minnesota Evidence Practice Center & Center for Learning Health System Sciences
- Clinician champions, supported by EPC methodological mentorship, develop evidence-synthesis capability while simultaneously producing timely evidence products that address real world clinical decision needs



Aims

- To identify variation in care across our multi-site hospital system, and gaps in best practice guidelines

- Bridge the gap in standardized best practice care & train clinician evidence researchers:
  - To educate clinicians and on systematic review methodology using project-based curriculum, simultaneously answering a clinical question in need of standardized EBM guidelines

- To implement, disseminate and evaluate the defined best practice into standardized practices across our institution

Methods

- Identify evidence based medicine champions (EBMCs) in interested medical and surgical departments
  - The EBMC forms a team of interested researchers in their department to assist with the project (residents, PhD students, other faculty)

- The EMBC Team identifies 1-3 clinical question addressing a need for care variation reduction and EBM protocols in their specific area of medical practice

Methods

- The champion is trained by our program staff in basics of evidence synthesis, and then is guided through a systematic review aimed at answering a defined clinical question.
- Organizational teams then facilitate implementation and evaluation

Stage	EBMC activity	EBMC Product
Clinical problem identification	**Identify 1-3 areas lacking standardized evidence-based care**	**Clinically relevant question(s)**
Question formulation	**Key questions; PICOTS eligibility criteria**	**Review protocol**
Evidence identification	**Search strategy and algorithm; PROSPERO registration**	**Systematic, reproducible evidence search strategy**
Evidence appraisal	**Title/abstract and full-text screening; Risk-of-bias assessment; Data extraction**	**Included evidence base, risk-of-bias assessments, evidence tables**
Evidence synthesis	**Synthesis, including meta-analysis if possible, and outcome-level strength of evidence ratings**	**Systematic review evidence summary**
Evidence dissemination	**Published manuscripts, presentations at societal meetings, internal dissemination**	**Decision-ready evidence synthesis products**
Practice change	**Translate findings into standardized protocols/care pathways**	**Evidence-informed care protocols**
Evaluation	**Measure implementation success, patient-level outcomes**	**Outcome metrics; identification of areas for potential optimization**

Results

- Our initial deployment of the EBMC Program trained five physicians (four in General Surgery, one in Orthopedic Surgery) and one PhD student in the basics of evidence synthesis
- Four published systematic reviews[1-4]
- Medical society presentations (one regional, and one national)
- One international societal guideline[5]
- Standardized best practice elements successfully implemented across our health system

Limits

Limited Staffing:

- We only reached two departments (Department of General Surgery, and the Department of Orthopedic Surgery). **With dedicated effort, we hope to expand our impact.**
- No formal educational assessment.

Required EPC & Implementation Structures:

- Success requires evidence synthesis trained mentors.
- Implementing practice change requires an **organizational infrastructure of multi-specialty clinical leaders, operations, IT, quality improvement specialists**, and effective implementation and dissemination protocols. This is not feasible at all hospital sites.

Conclusions

- Enabling clinicians to effectively conduct systematic reviews and meta-analyses through the process of identifying and answering a real-time clinical question is feasible.
- Clinician EBM Champions can facilitate translation of ES products to actionable best practice protocols while widely disseminating their findings.
- Future efforts will involving larger scale operations and formal educational effectiveness assessments.
- This program requires dedicated Evidence Synthesis researchers, and EBM implementation requires a coordinated organizational infrastructure.

References:

1. Weaver, Lauren, Welton, Lindsay, Troester, Alexander, Kohn, Julia, Klemen, Nicholas, Jahansouz, Cyrus & Butler, Mary, **Southwell, Bronwyn**, Goffredo, Paolo. (2025). 1335: Evidence Behind the Use of Extended Venous Thromboembolism Prophylaxis in Colorectal Surgery: A Systematic Review. Gastroenterology. 169. S-1980. 10.1016/S0016-5085(25)05480-0.

2. Troester A, Olson S, Welton L, Weaver L, Parikh R, Li A, Claussen AM, Brandt S, Butler M, **Southwell B**, Goffredo P. Perioperative nutrition therapy to optimize colorectal patient outcomes: A systematic review and meta-analysis. JPEN J Parenter Enteral Nutr. 2026 Jun 15. doi: 10.1002/jpen.70112. Epub ahead of print. PMID: 42298792.

3. Troster, A., Parikh, R., **Southwell, B.,** Ester, E., Sultan, S., Greeno, E., Arsoniadis, E., Church, T., Wilt, T., Butler, M., Goffredo, P. "Treatment of Stages I-III Squamous Cell Anal Cancer: A Comparative Effectiveness Systematic Review". Journal of National Cancer Institute, 2(117), 240-252. PMID: 39163501 PMCID: PMC11807441 doi:10.1093/jnci/djae195

4. Parikh RR, Mirzaei A, Butler ME, Restrepo DJ, Guarin Perez SF, Brandt S, Swartz G, Katanbaf R, Goodman SB, Mont MA, et al. Diagnosis and Treatment of Nontraumatic Osteonecrosis of the Femoral Head: A Systematic Review and Meta-Analyses for the ARCO Clinical Practice Guideline Development Workgroup. *Medical Sciences*. 2026; 14(1):107. https://doi.org/10.3390/medsci14010107

5. Cheng EY, Mirzaei A, Goodman SB, Cui Q, Mont MA, Jones LC; the ARCO Clinical Practice Guideline workgroup. Nontraumatic Osteonecrosis of the Femoral Head: An International Evidence-Based Clinical Practice Guideline. J Bone Joint Surg Am. 2026 Jun 17;108(12):903-906. doi: 10.2106/JBJS.25.01616. Epub 2026 Apr 10. PMID: 41961916.