



ECRI Institute and GLIDES



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ECRIInstitute
The Discipline of Science. The Integrity of Independence.

ECRI Experience Relevant to GLIDES

- ▶ Nonprofit research institute and AHRQ-designated Evidence-based Practice Center and Patient Safety Organization (PSO)
- ▶ Contractor to AHRQ to create, maintain, and enhance the National Guideline Clearinghouse (NGC) since 1997, and the National Quality Measures Clearinghouse since 2001
- ▶ Relationships in place with hundreds of guideline and measure developers worldwide, also with guideline implementers
- ▶ Produces structured abstracts of 1000s of guidelines/ measures
- ▶ Authors guideline syntheses – in depth comparisons of agreement/differences across multiple guidelines on same topic
- ▶ Provides methodology support to guideline and measure developers

NGC GEM Feasibility Pilot Study (Funded by AHRQ)

- ▶ Completed initial pilot project in 2010, funded by AHRQ HIT program: Feasibility study of whether GEM is a viable approach in the scaled-up NGC production environment, as compared to an academic research environment
- ▶ A convenience sample of 20 guidelines were GEM-cut in parallel by 3 ECRI NGC abstractors
- ▶ Each abstractor first parsed major recommendations and other elements into a modified NGC template, then GEM-cut the same content using the GEM Cutter II Tool
- ▶ We examined:
 - Time to complete the GEM-cut output as compared to the NGC summary
 - Incidence of agreement/disagreement on GEM abstraction between the abstractors and with the Yale team

Conclusions

- ▶ The abstraction of recommendations into GEM can be done outside of the current research environment at Yale.
- ▶ It would be scalable in the NGC production environment at ECRI.
- ▶ Additional time required is significant, but time/cost can be reduced through optimized work processes.
- ▶ Roadmap for “GEM-ifying” the NGC Web site:
 - The GEM Pilot and ECRI’s subsequent efforts in GLIDES culminated in ECRI’s proposal to provide GEM-processed content via NGC. Key elements of the proposal include:
 - GEM use cases (i.e., ways users/ implementers would be most likely to/prefer to access GEM outputs at the NGC Web site)
 - details for modification of the NGC Web site for the provision of GEM-processed guideline content
 - eligibility criteria for selecting guidelines to be GEM cut; and an
 - NGC GEM Abstraction Manual and Style Guide.

GEM-Cutting for GLIDES

Using the experience gained during the GEM Pilot, ECRI continued to perform an extensive amount of GEM-cutting as part of GLIDES. Guidelines cut include:

- ▶ Kaiser Permanente
 - *Dyslipidemia Management in Adults*
 - *Hypertension Clinical Practice Guidelines*
- ▶ Institute for Clinical Systems Improvement (ICSI)
 - *Adult Low Back Pain*. ECRI GEM-cut this ICSI algorithm-based guideline in an effort to ascertain the possibility/difficulty of GEM-cutting algorithm-based guidelines, and to ultimately determine their eligibility in the GEM-ification of NGC. This guideline was selected because it was also cut by Geisinger Health System and thus would allow for comparison.
- ▶ Philadelphia Department of Public Health
 - *Diagnosis and Management of Lead Toxicity in Children* (Philadelphia's local lead screening guidelines). ECRI GEM-cut this guideline for CHOP; it demonstrated that many recommendations implemented in CDSSs are intrinsically "localized."
- ▶ American Society of Clinical Oncology (ASCO)
 - *Update on Adjuvant Endocrine Therapy for Women With Hormone Receptor-Positive Breast Cancer*

ECRI/AUA eGLIA and GEM Collaboration

- ▶ ECRI and AUA collaborated to determine the most effective way to process AUA clinical practice guidelines for CDS implementation through GEM-cutting and the use of eGLIA.
- ▶ Two guidelines were independently appraised using eGLIA by individuals at ECRI and AUA (including two urologists). Two dimensions (Executability and Decidability) out of the nine available were utilized. Appraisal results were reconciled during Webinars.
- ▶ The wording issues and ambiguities encountered were used to inform the GEM Cutting of both guidelines in order to maximize their decidability and executability.

ECRI'S Contributions to GLIDES and CDS

ECRI is...

▶ **A resource**

- At this time, ECRI has GEM-cut more guidelines than any other organization worldwide. For this reason, Yale consults ECRI on ways to improve GEM and the associated GEM-Cutter file editor:
 - ECRI tested the GEM Cutter III tool for Yale in August 2012 and provided feedback/suggestions for improvement.
 - In February 2013 Yale consulted ECRI on the expansion of GEM to accommodate and reflect the new BRIDGE-Wiz, which makes possible separate considerations of multiple actions in a compound action statement.

▶ **An implementation partner**

- As a result of ASCO's experience with GLIDES, ASCO has worked with ECRI to GEM-cut a number of ASCO guidelines and create decision rules from them to support the new ASCO CancerLinQ rapid learning system. ASCO is firmly committed to the use of GEM Cutter as a precursor for building decision rules for CancerLinQ.

▶ **A CPG development partner**

- ECRI provides methodological support, including developing systematic reviews, to guideline development organizations. GLIDES partner AUA has contracted ECRI for methodological support on two guidelines to date:
 - *Adult Urodynamics*
 - *Urotrauma*

ECRI is... (cont.)

▶ **An evaluation partner**

■ ECRI's evaluation efforts:

- From September 2012 through February 2013, ECRI conducted teleconferences with the GLIDES partners in order to evaluate their efforts to implement CDS demonstration applications (implementation partners), and to design, implement and pilot processes and tools intended to make guidelines clearer and more implementable (guideline development partners).
- Semi-structured instruments, “interview guides,” were used to lead the discussions. One challenge associated with the question development is that GLIDES CDS implementers are in different stages of deployment of their modules. Similarly, the guideline developers have different levels of familiarity with BRIDGE-Wiz, ranging from very familiar and well entrenched in their guideline development process, to just beginning to introduce this approach.

Looking Ahead

- ▶ The development of trustworthy CDS tools must originate with evidence-based clinical practice guidelines.
- ▶ GEM organizes guideline knowledge into a standardized structure and can facilitate uptake by decision support application developers and others seeking to implement guidelines in various ways.
- ▶ Offering GEM output as a complementary resource to the Guideline Summaries on the NGC Web site would greatly increase awareness of not only CDS in general but of GEM and how it can be used to facilitate development and implementation of effective decision support to ultimately improve the quality of healthcare delivery in the U.S.