Quality Improvement Measures for Cervical Cytology Screening

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Problem

Providers of gynecologic care are often practicing outside of the clinical practice guidelines for cervical cytology screening due to several factors:

- Lack of education on the evidence surrounding cervical cytology
- Patient requests
- New HPV detection products on the market
- "More is better" theory
- Perceived diligence of improved patient care





Quality Improvement Project

The purpose of this project was to determine the effectiveness of a quality improvement initiative to increase adherence to the 2012 US Preventative Services Task Force (USPSTF) guidelines at a volunteer medical clinic for the working uninsured.

The project took place in Jacksonville, Florida at Volunteers in Medicine. The clinical providers education and experience ranged from newly graduated midlevel providers to high-risk perinatologists with 35 years of experience. Additionally, midlevel, resident, and intern students routinely completed hours at the clinic under supervision of an experienced provider.





PICOT Question

(P) Will primary care and gynecology providers practicing women's health services at a clinic for the working uninsured

(O) adhere to

(C) 2012 clinical practice guidelines for cervical cancer screening after the

(I) implementation of a quality improvement initiative

(T) three months post-implementation?





Practice Evolution

Use of the 2012 USPSTF guideline was relatively inconsistent at the clinic after it was published in March 2012

Late October 2013, nursing faculty reviewed and reinforced the new guidelines each time students were supervised at the clinic





Methodology

Study Design: Retrospective, time series, observational quality improvement initiative utilizing chart review

Objective: To evaluate provider adherence to the new clinical practice guidelines

Setting: Volunteer clinic in northeast Florida providing care to the working uninsured

Sample: A convenience sample of the medical records of women who had women's health exams with ICD-9 code V72.3 at the clinic between August 1, 2013 and April 31, 2014





The quality improvement initiative for this project was education with visual presentation of the 2012 USPSTF Clinical Practice Guideline for clinical decision making on the appropriateness of cervical cytology screening presented in an algorithm form.





2012 USPSTF Clinical Practice Guideline -Screening for Cervical Cancer



Reference:

Vesco, K. K., Whitlock, E. P., Elder, M., Lin, J., Burda, B. U., & Senga, C. A. (2011). Screening for cervical cancer: A systematic evidence review for the U.S. Preventive Services Task Force, Evidence Report no. 86. Rockville, MD: Agency for Healthcare Research and Quality.





Laminated algorithms were placed in women's health exam rooms

Algorithms were affixed to the wall above the mayo stands which held the medical equipment for cervical cytology screening to prompt appropriate decision making

Additional algorithms were placed at the clinician charting desk and in the break room as a reminder of the guideline





Education of the evidence and clinical practice guidelines

- The providers were educated by the investigator on the clinical practice guideline and the ease of use of the algorithm for clinical decision making
- The clinical staff including: registered nurses, medical assistants, and ancillary staff were educated on the of use of the algorithm for decision making
- The nurses and medical assistants who assisted with gynecology exams were encouraged to view the client's chart prior to the exam to provide the correct supplies for the examination and screening





Data Collection

Data were collected form three time periods:

(a) Baseline Group- August 1 to October 31, 2013, to represent baseline adherence to the new guidelines

(b) Post-education Group- November 1 to January 31, 2013, the three months immediately following nursing faculty education to full-time clinic staff and nurse practitioner students

(c) Post-algorithm group February 1 to April 31, 2014 the three months immediately following introduction of the algorithms into the clinic





Results

Appropriateness of screening among the three groups

- There was a significant difference in the proportion of appropriate screening among the three groups (X2 = 6.83 p = *.04)
- Appropriate screening was significantly higher for patients in the third group (Post-algorithm) compared to the first group (Baseline) (93.6% vs 83.2% respectively)





Results







Discussion

Use of the algorithm with education contributed to improvement in adherence in using the 2012 USPSTF clinical practice guidelines for cervical cancer screening





Implications for Practice Adherence

A multidisciplinary evaluation, educational intervention, and implementation strategy is recommended to continue to improve adherence

- Chart audits with feedback to providers
- Educational sessions with providers and staff
- Continued use of the algorithm
- Orient new providers of women's health care concerning the expectation and use of the clinical practice guidelines
- Improve history form to triage risk factors for cervical cytology
- Electronic health record programed to the guidelines with global alerts





Implications for Future Practice

Educate women on the change in practice

- Explain the new guidelines to avoid harm with excessive pap smears Explain the utility of HPV detection and the limitations of cervical cytology and HPV testing
- Provide education on the components of an annual exam
 - Breast exam
 - Pelvic exam
 - Hormonal evaluation
 - Wellness education







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