

Title of Intervention: Improving performance in diabetes care through a multi-component intervention

Intervention Strategies: Environments and Policies, Provider Education

Purpose of the Intervention: To increase the annual screening rates for patients with diabetes and reduce overall levels of HbA_{1c}

Population: A practice of general internists

Setting: The Mayo Clinic in Rochester, Minnesota; worksite-based, health care facility-based

Partners: Institute for Clinical Systems Improvement

Intervention Description:

- **Environments and Policies:** The first part of the intervention was the development of a set of guidelines for diabetes care. These guidelines were based on the recommendations of the American Diabetes Association (ADA). Computer workstations located in every examination room of the medical campus provided access to the electronic version of the guidelines. Physicians had access to an electronic ordering system that included a diabetes "hot button." This button would pull up all of the relevant tests for patients with Type 2 diabetes, which made it easier for physicians to order the tests suggested by the guidelines.
- **Provider Education:** Group education sessions for health care providers were held at the clinic and were led by endocrinologists who were opinion leaders in diabetes. These sessions supported information found in the guidelines by encouraging testing and proper management of diabetes as recommended by the ADA. The physicians of the clinic received regular feedback, through e-mail, on the measures of the diabetes care that they were providing.

Theory: Not mentioned

Resources Required:

- **Staff/Volunteers:** Opinion leaders
- **Training:** Not mentioned
- **Technology:** Computers workstations, e-mail capabilities, local intranet, electronic ordering system, diabetes "hot" button
- **Space:** Computer workstations, group sessions
- **Budget:** Not mentioned
- **Intervention:** Guidelines for diabetes care
- **Evaluation:** Staff to perform audits of patient records and provide feedback to physicians

Evaluation:

- **Design:** Cohort
- **Methods and Measures:**
 - Feedback was given to physicians regarding tests ordered and patients' clinical measures.
 - Surveys assessed aspects of the intervention most affecting clinical practice.
 - Clinical measurements of patients were tracked to assess quality of care and health outcomes.

Outcomes:

- **Short Term Impact:** Provider knowledge of the ADA guidelines was enhanced and efforts to adhere to the guidelines improved. The diabetes "hot button" on the order system made physicians more aware of all the tests that should be ordered for patients with Type 2 diabetes. In turn, more tests were ordered in a timely manner.
- **Long Term Impact:** Every patient clinical measure improved, which reflected better patient outcomes.

Maintenance: Not mentioned

Lessons Learned: Physicians of Type 2 diabetes mellitus patients should have reinforcement of the ADA guidelines of care to improve the quality of care delivered. Improving the accessibility of the guidelines as well as the implementation of a diabetes "hot button" that automatically pulls up all of the relevant tests in an ordering system can improve the health outcome of the patients.

Citation(s):

Nyman MA, Murphy ME, Schryver PG, Naessens JM, Smith SA. Improving performance in diabetes care: a multicomponent intervention. *Eff Clin Pract.* Sep-Oct 2000;3(5):205-212.