

REVIEW

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Electronic Health Record (EHR) As a Vehicle for Successful Health Care Best Practice

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ABSTRACT

Objective: application of EHR in journey toward the development and adaptation of best practice approach in health care has particular importance. The aim of this review article is survey of successful best practice through EHR. **Methods:** In this literature review articles were searched with keywords like Electronic Health Record, Best Practice in Science Direct, Google Scholar and Pub Med databases since 1999. **Results:** best practice in health care through some services like utilization management, case management, and information technology tools can perform. Utilization management in combination with evidence based medicine facilitate determine best decision. Health records are based on evidence medicine and be the richest source of health information. Definitely use of EHR has play pivotal role in journey toward the development and adaptation of best practice approach. **Conclusion:** Because of potential capabilities, EHR can be regarded as a main core and fundamental element in best practice approach. Success implementation of EHR relies on many factors that should be considered. Some critical success factors for EHR implementation that should be noted are change management, Physicians, nurses and key stakeholders involvement, leadership, provide reliable information technology infrastructure, system design, privacy and security, right budget, support high level management, clear communicate, determine goals and user needs, and define roles and responsibilities, interoperability standards.

Key words: Electronic Health Record, EHR, Best Practice, Health Care.

1. INTRODUCTION

Health systems in all countries faced to some challenges like high costs, lack of sufficient relevant resources. Nowadays the health care environment is more complex because of coordination and communication needs between health care professionals with different skills in a variety of roles, and large amounts of data with various formats of audio, image, and so on (1). The best way to reduce barriers in health sectors and increase the empowerment of people is prevention of diseases and appropriate health activities management through best practice approach. Best practice defined in health care as the "best way to identify, collect, evaluate, disseminate, and implement information about as well as to monitor the outcomes of health care interventions for patients or population groups and defined indications or conditions" (2). Identify factors that affect on support and facilitate best practice approach is necessary. Some important points that should be considered are timely access to accurate information, correct health data management, provide appropriate needs information for users (1). Note to these points lead to reduce medical errors, enhance the integrity and quality of health care.

Information technology (IT) tools in health systems have advantages like patient empowerment (3), quick access to health information (4), improve medical education and research (5), rapid establishment of communica-

tion regardless of distance restraints (6), improve patient treatment and survival, increase patient and health care provider's satisfactions (7). Hence it can be said using of IT tools is fundamental step for implementation of best practice approach. Health records are based on evidence medicine and should be considered as a most important and the richest source of health informatics. All processes of development health systems in any society affected by efficient and correct implementation of Health records. Definitely use of information technology in this field as an electronic health records (EHR) has play pivotal role in increasing the effectiveness of health services, promote decision making and improve management (8). Hence application of EHR in journey toward the development and adaptation of best practice approach in health care has particular importance. The aim of this review article is survey of successful best practice through EHR. In this literature review articles were searched with keywords like Electronic Health Record, Best Practice in Science Direct, Google Scholar and Pub Med databases since 1999.

2. BEST PRACTICE AND DYNAMIC HEALTH CARE ORGANIZATION

Global business, increase focus on costs and quality, diversity of customer's expectations lead to different industries to find suitable strategies for high productivity and quality, better performance, meet customer needs and de-

crease costs. Health care industry is not exceptions from this rule. Variety countries given the importance role of care industry and direct and indirect effects of its on different aspects of society development try to use best practice approach for outcome improvement (9). Best practice in health care through some services like utilization management (UM), case management (CM) can performed (10).

Utilization management is a one of the methods to survival health care organizations in competitive environment. UM is "the evaluation of the appropriateness, medical need and efficiency of health care services procedures and facilities according to established criteria or guidelines and under the provisions of an applicable health benefits plan".(11)Utility management help to find best practice, promote cost effective clinical decision making, use appropriate health resources, and improve patient outcomes (12). Case management is a generic term. It defined according to case management society of America (CMSA) as "a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet an individual's and family's comprehensive health needs through communication and available resources to promote quality cost-effective outcomes".Key elements in CM approach include case finding, assessment, care planning, case closure, care coordination: a- medication management, b- self-care support, c- advocacy and negotiation, d- monitoring and review. Case management programs improve quality of life, better care for patient, cost saving, reduce utilization of hospital based services and support better care outcomes (13).

3. INFORMATION TECHNOLOGY TOOLS: IMPORTANT APPROACH TO BEST PRACTICE

Information technology tools such as e-health, telemedicine, telehealth, mobile health, intelligent systems are powerful approach for improving efficiency and effectiveness of health care organizations (14, 15). Use of electronic information systems have significant benefits such as less waiting time for patient, drug side effects management, reducing mortality, decreasing medical and diagnosis errors (16), optimized resource utilization, utilization management (17), increase data quality and interchanged data electronically, improve clinical and information management outcomes, increase user satisfaction and support decision support (18). According to research optimization of health care organizations processes and best practice through information technology tools is highly available. These tools because of significant advantages can be regarded as one of the fundamental parts of health system in any countries.

4. SUCCESSFUL BEST PRACTICE TROUGH EHR

4.1 Best practice by health information technology tools trough EHR

In complex health environment application of health information technology tools is suitable approach. In spite of information technology advantages, some challenges

are remain like need to coordination and communication among health care professionals with different skills and various roles in delivery health care services to patient, integration and quality of health care services and medical errors due to discontinuity of cares. These challenges eliminated by correct health data management, providing appropriate information needs, timely access to accurate information (1). EHR is an essential means to access to correct and reliable data and leads to improve quality (19), safety and efficiency of health care (20, 21), decrease inappropriate care, incomplete information (22), and reduce medical errors (24, 23). Clinical decision support via EHR has important role in health care quality especially in preventive care and chronic disease management (25) and is a valuable assisting tool in translation new evidence into practice (26, 27,28).

4.2 Best practice by Case management trough EHR

Case management is dependent on the exchange of data and information among persons with various skills in different places and team works. So access to comprehensive and update information and constant communication with the multidisciplinary team is very vital. Each changes in patient status and any progress in case management must be informed to other members of multidisciplinary team. For this reason high quality information is an important foundation for case management. Case finding, care planning and assessment, care coordination, enables all stakeholders to refer to assessments of patients status and care plans, deliver better care to patient, cost savings are some advantages of application of good quality information in case management (13). In electronic health system EHR can be regarded as valuable elements of case management. EHR is a best tool for support continues communication, increase quality of case management programs with" provide timely access to relevant and update information (29).

4.3 Best practice by utilization management trough EHR

On the other hand utilization management has closed relationship with case management. Both of them deal with appropriateness and necessity of practices. Essential parts of any UM program in health care are evidence based decision support for providing objective criteria to help determine the best practice (30). Nowadays demand to select best evidence in program management is high and many health care organizations apply evidence-informed processes for making decisions about resources and care services delivery (31).Utilization management in combination with evidence based medicine (EBM) facilitate determine best decision and enhance the quality and effectiveness of health care (30).The aim of evidence based medicine (EBM) is use of current best of evidence in making clinical decisions about the care of individuals patients. First step in EBM is convert our need for information about prevention, diagnosis, prognosis, therapy and so on into an answerable questions then find the best evidence to answer these questions (32). Also EHR is a valuable repository of health information about clinical finding, etiology, clinical manifestations, differential diagnosis, diagnostic tests, and prognosis, risk factors and screening, general information, patient status and many

others (33). Hence EHR is a key factor and main infrastructure for support of evidence based medicine.

5. CONCLUSION

Various industries especially health system need to follow strategies in order to survival in competitive environment, achieve maximum efficiency and improve performances and outcomes. Best practice approach that is suitable strategy to reach to these goals. This approach through different methods like utilization management, case management and information technology tools is possible and has advantages such as reduce duplication and errors, improve resource management, better decision making. Successful implementation and development of best practice approach in health systems depend on timely access to high quality, update, and comprehensive related information. So electronic health records (EHR) is richest source of medical evidence and health information and can support continues communication between members in different team works. Because of potential capabilities, EHR can be regarded as a main core and fundamental element in best practice approach. In design and implementation of EHR, planning for important items such as change management, physicians, nurses and key stakeholders involvement, leadership, provide reliable information technology infrastructure, system design, privacy and security, right budget, support high level management, clear communicate, determine goals and user needs, and define roles and responsibilities, interoperability standards should be considered.

CONFLICT OF INTEREST: NONE DECLARED.

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