Quality improvement intervention for completeness of patient medical records in private teaching hospitals Mashhad, Iran

ABSTRACT

Introduction: Patient record completeness considered as quality indicator of patient medical record by accreditation bodies worldwide. Quality medical patient record facilitated sharing of valuable information for continuing of patient care. Completeness of medical record would reduce medical error, in discipline of forensic medicine quality medical record is the valuable information for policy making. In many private Iranian hospitals did not practiced regular protocol patient medical record quality improvement, except during hospital accreditation. The aim of study was to evaluate the impacts on completeness of patients' medical records before and after quality improvement intervention in private teaching hospital in Mashhad, Iran. Methods: A quasi experiment study was conducted in two wards of medical and surgical wards respectively. The intervention started with formation of project technical committee and working committee in the hospital to implement the intervention. The Quality Improvement Protocol for Medical Record prepared by researcher based on Ministry of Health and Medical Education (MOH&ME) protocol used in accreditation of hospital by MOH&ME in Iran, and approved by project technical committee to be used in this study. The study protocol consists of 6 types of patient records measurement (admission, consultation request, physician order, progress note, patient history and operation note), under 13 criteria and 56 items examined for completeness of medical record. A workshop conducted to trained members of working committees from selected wards. The protocols were implemented in surgical and medical wards respectively as an intervention group and another two wards of surgical and medical wards as a control group. A minimum size of 146 respondents consisting of physician in the respective wards was included in the study. Measurement of medical record completeness were taken at baseline, week 20th and week 40th in both intervention and control group. Results: A total of 979 medical records were completed in two hospitals during the study period. There were 5 month intervals between measurements, the length of stay was less than two days and patient age was 39.21 ± 20.43. The lowest score for completeness of medical record was measured in progress note 3.11 ± 0.98 and the highest score was in physician order 4.25 ± 0.60 out of 5. The average of completeness in selected documents was 3.82 ± 0.40 out of 5. Statistical analysis of overall completeness of patient medical record at 20th week (post-intervention) revealed no significant difference between intervention hospital and control hospital ($P>0.05$). However, findings at 40th week (5 months post-intervention) showed significant difference in most of the records ($P<0.05$) except for consultation request record. The two way analysis of variance conducted in intervention hospital and control hospital showed that at the hospital, time and interaction levels were statistically significant ($F=12.62$, $P<0.001$ & $F=34.93$, $P<0.001$ & $F=15.25$, $P<0.001$). However the completeness of patient history and physical examination were less improved ($P>0.05$) because involvement of medical students or trainee in completing these section. Conclusion: Patient medical record completeness important aspect of medical record, it will affect both hospital level and national level of decision making. This study concluded

that quality improvement intervention among physician has improved completeness of patient medical record in intervention hospital.