Evaluation of medical performance through the quality of the clinical processes records

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Abstract

One way of evaluating the quality of Health Care aims the introduction of "Health Quality Assurance", and to set up lines of intervention and standardization of the clinical performances.

In this work we have seen 439 clinical processes of four medical services of the Hospital District de Viseu, identified by letters "A", "B", "C" and "D'. The global results are between "Sufficient" and "Good". However the medical service named as "A" is above the others.

If the "Diary Clinical Register" is satisfied, the one of the "Complementary Exams" shows on one hand the services "A" and "D" with a level above 80 percent and the others "C" and "B" with levels of 53.7 and 33.3 percent respectively. There is the same relationship in other evaluated items.

None of the 439 processes consulted has the "Statement of Consent" for a medical or surgical treatment, filled in, by the patient or by his legal representative.

Key words: clinical performances; health care quality; clinical processes.

Introduction

"Any measuring system aiming to be a support to a continuous improvement in medical care must consider all variable sources" (Batalden e Nelson, 1990. International Journal of Health Care Quality Assurance, 3,4,7).

This work is included in the policy of quality guarantee programs aiming to evaluate professional performance through the quality of records in clinical processes.

It is accepted the corollary that clinical processes well filled in are a major input to a good patient assistance, reason why the authors believe to be a basic need that clinical records are legible whilst recording in a comprehensive and accurate manner the fundamentals.

Material and methods

A retrospective work of 439 clinical processes referring to all admitted patients in four medical and surgical services of Viseu District Hospital during January and February 1994, was undertaken. The services were named by the letters A, B, C and D each one of them with a respective input of 202, 86, 78 and 73 processes.

The physicians in charge of this work defined a number of criteria both explicit and normative (*Table I*) with the respective scores, being made up afterwards a careful data collection per item and per service (*Table II and III*). Services were classified in different levels, according to the score obtained (*Fig. 6 and 7*). Finally, correcting steps both of organizational and educational level are proposed.

Trying to make a partial assessment of the results, we realized that regarding the clinical history, Service A has shown the highest record number and service B the lowest. To highlight that family background was undervalued in all services, due to a very low number of records.

* Internal Medicine Supplementary Internship
** Cardiology Supplementary Internship
*** Anesthesiology Supplementary Internship
**** ENR Supplementary Internship
*****Anesthesiology Hospital Assistant
******Internal Medicine Hospital Assistant
*******Internal Medicine Senior Hospital Assistant
********ENR Hospital Assistant
*********Anesthesiology Senior Hospital Assistant
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TABLE I

Applied Criteria	Exceptions	Terms definitions
The clinical process must include: 1. Clinical History 1.1 Cause of admission 1.2 Anamnesis a) Current History b) Personal background c) Family background 1.3 Objective exam a) General observation b) Cardiopulmonary and Abdominal c) Other	1.3 b) Abdominal in B and C	1.3 c) According to admission specialty
2. Daily Clinical Record	2. During - pre-surgical period - week-ends and holidays	
3. Results of Supplementary Exams 3.1 From imaging 3.2 Analytical 3.3 Electrocardiography 3.4 Other		3. According to the respective requests. In surgery there are service rules. 3.4 Biopsies, cytologies, endoscopies, function tests.
4. Discharge record 4.1 Discharge diagnosis 4.2 Discharge note 4.3 Patient's destination		
5. Consent statement for medical/surgical procedure		
6. Record relating to a patient undergoing a surgical procedure 6.1 Pre-anesthesia visit 6.2 Surgery record 6.3 Anesthesia record duplicate	6.1 If anesthesia was delivered by a surgeon 6.3 If anesthesia was delivered by a surgeon	

Regarding the daily clinical record we can see that A and D services got similar results.

Regarding the presence or record of supplementary exams high similar values of services A and D were seen.

Regarding the discharge record and considering three endpoints (discharge diagnosis, discharge not and patients destination), it is noted a percentage reduction in the discharge diagnosis record, referring to service B relating to a different clinical process. In all of them, the discharge note and the patients' destination is present in low percentage.

The consent statement for medical procedures is not present in any of the services considered in this study.

Regarding the record of patients undergoing surgical procedures, Service A has no record as it is a medical service and there is no place to such procedure regarding a pre-anesthesia visit, a surgical record and the duplicate of the anesthesia record.

Results of the services distribution by assessment level

From the result of the distribution of services through the different evaluation levels, it can be assumed that in general the results are good, although some discrepancies exist among the different services which can be reduced (see *Table III and Table III-A*).

TABLE II

Data collection sheet

1. Clinical History.....	**Yes**	**No**	**Score**
1.1 Cause of admission.....			.....
1.2 Anamnesis.....			.....
a) Current History.....			.....
b) Personal background.....			.....
c) Family background.....			.....
1.3 Objective exam			
a) General observation.....			.....
b) Cardiopulmonary and abdominal.....			.....
c) Others.....			.....
2. Daily clinical records			
- Admission days.....			
- Daily records.....			.....
3. Records of supplementary tests	**Rule/Request**	**Record**	
3.1 From image.....	.....		
3.2 Analytical.....	.....		
3.3 Electrocardiography.....	.....		
3.4 Others.....	.....		
	Total		.....
4. Discharge record.....			.....
4.1 Discharge diagnosis.....			.....
4.2 Discharge note.....			.....
4.3 Patient's destination.....			.....
5. Patient's consent statement to medical/surgical treatment.....			.....
6. Patient's record subject to a surgical procedure			
6.1 Pre-anesthesia visit.....			.....
6.2 Surgery record.....			.....
6.3 Anesthesia record duplicate.....			
		Total score	.....

Discussion

The wide disclosure and use of statistics methods, scientifically tuned to measure and monitor the quality of medical work is a budding project and must count, mainly with the commitment of all physicians and remaining health professionals.

A particular attention by physicians to a change can not be a rhetoric subject. Reason why after this work, we are better prepared, not only to withdraw conclusions but also to advice correcting measures.

It should be mentioned from the start a previous finding: Service B has a different clinical procedure what can prejudice some results, this, in spite of having had made a standardization effort collecting data.

In a democratic spirit of scientific methodology, we refer to some of the most pertinent conclusions:

The "Clinical History" is crucial and must be recorded in its different items in simple language, concise and legible. From the assessment of several results it is to be highlighted a loop in the "Family History" record, in all evaluated services.

The "Daily Clinical Record" is in general satisfactory with the mentioned exception.

The results of "Supplementary Exams records" show already two significant differences, on one hand Services "A" and "D" with values above 80% and on the other hand Service "C" with 53.7% and service "B" in the 33.3%.

What concerns a "Discharge Record" if it can be said it is recorded in almost its totality the "discharge diagnosis" (excepting Service "B" for the reasons already mentioned) we can also say there are few processes where it is mentioned a "discharge note" and the "patient's destination". Even so, Services A and C show differences in a positive way that can be clearly improved.

In "results of the patient's record subject to a surgical procedure" there are no records in Service A because it is a medical service in the more strict sense of the word.

None of the 439 processes consulted has a "Consent statement" filled in by the patient or its legal representative and are recorded surgical interventions

TABLE III

Results sheet by item and service

	SERVICES			
	A	B	C	D
Total of assessed processes (439)	**202**	**86**	**78**	**73**
1. CLINICAL HISTORY %				
1.1 Cause of admission	100	98.8	100	95.9
1.2 Anamnesis				
a) Current history	96	53.5	70.5	69.9
b) Personal background	79.2	25.6	62.8	47.9
c) Family background	5.9	1.2	38.5	1.3
1.3 Objective exam				
a) General observation	73.8	2.3	15.4	46.6
b) Cardiopulmonary abdominal	62.9	4.7	34.6	50.7
c) Other	67.9	59.3	46.1	45.2
2. DAILY CLINICAL RECORD				
Admission days (absolute number)	1986	735	562	682
Daily records (%)	83.9	33.3	75.6	83.3
3. SUPPLEMENTARY EXAMS RECORDS				
Services requests/rule (absolute number)	485	192	147	151
Recorded (%)	81.2	37.5	53.7	84.1
4. DISCHARGE RECORD (%)				
4.1 Discharge diagnosis	100	27.9	96.2	100
4.2 Discharge note	19.8	3.5	10.3	2.7
4.3 Patient's destination	29.7	1.2	26.9	5.5
5. PATIENT'S CONSENT STATEMENT FOR MEDICAL/SURGICAL PROCEDURES	0	0	0	0
6. RECORD REFFERING TO SURGICAL PROCEDURES PATIENTS (%)				
6.1 Pre-anesthesia visit		60.9	53.8	75
6.2 Surgery record		93.8	100	97.2
6.3 Anesthesia record duplicate		92.2	84.6	66.7

biopsies, urinary CAT scans and other medical and surgical procedures capable of producing irreparable damages in patients' good health.

If the global distribution of clinical processes of the services by the different "assessment levels" lead to results mainly in the "Enough" and "Good" range, but nothing of the kind can be said when we assess each service on their own. Thus, if the results are clearly better in Service A, and followed shortly afterwards by Services C and D, the same does not apply to Service B.

From the reading of all conclusions and the critical assessment of the values found here we are before a bigger problem: to propose new organizational and educational forms in the sense of improving the quality of records in clinical processes.

These new forms are in perfect symbiosis with the quality problem, what takes us to propose, in organizational terms the following steps:

Setting up a committee to assure quality with a role of defining strategic actions to a continuous quality improvement in health care, to create the necessary infra-structure to its work, promoting the formation of multidisciplinary working teams around quality projects.

To create a "working group" to implement a new clinical process which will take into account the specificity of several services and the need of standardizing data recording criteria in clinical processes.

To create a "working group" aiming the computing and internal management of several quality improvement projects and support to the continuous tuning and correction of the program itself.

Improvement on the site of health care delivery in the different levels and fields.

In educational terms, it emerges the need of exerting a "awareness campaign" to a good filling of clinical processes, to take steps of professional training and widening of staff to the different levels of intervention of the continuous improvement criteria in the quality of care in health area. ■

TABLE III A

Classification code by levels

N 1 – Insufficient < 50 points
N 2 – Sufficient: 50 to 80 points
N 3 – Good: 81 to 100 points
N4 – Very good: 111 to 124 points

To get such classification, it is allocated a calculated quotation to each item. In cases where the processes refer to surgical patients, the 6th group can not be considered, it is necessary to multiply the score obtained by a constant 1.24.

1. Clinical History (24 points)
1.1 Reason for admission..... 4
1.2 Anamnesis (10 points)
a) Current history..... 6
b) Personal background..... 3
c) Family background..... 1
1.3 Objective exam (10 points)
a) General observation..... 3
b) Cardiopulmonary and abdominal..... 3
c) Other..... 3

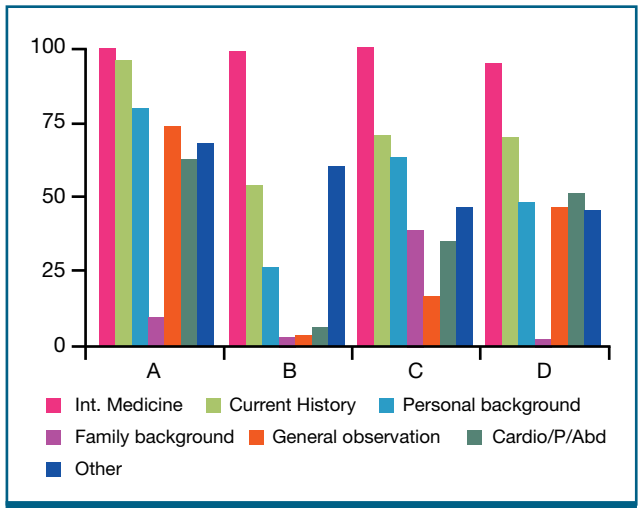
2. Daily Clinical Record (24 points)
Total of daily records
_____ x 24

3. Supplementary tests results
This score is usually reached allocating the same score to the record of several kinds of exams. However, as there can be more than a same type of exam, the allocated value will be one emerging from the formulae:
Records total
_____ x 24
Exams total

4. Discharge records (24 points)
4.1 Discharge diagnosis.....10
4.2 Discharge note..... 8
4.3 Patient's destination..... 6

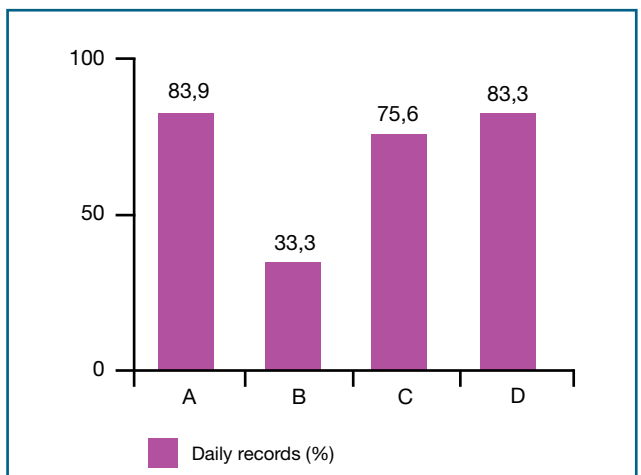
5. Patient's consent statement to the medical/surgical procedure (4 points). It is attributed a low quotation to this item, once that only recently it became usual in Viseu District Hospital and it is not yet standardized to all services.

Record referring to patients undergoing surgical procedures (24 points)
6.1 Pre-anesthesia visit..... 10
6.2 Surgery record.....10
6.3 Anesthesia record duplicate.....10
6.3 In the case, the anesthesia was delivered by a surgeon, it is allocated the total score to the surgical record



Graphic representation of the clinical history record.

FIG. 1



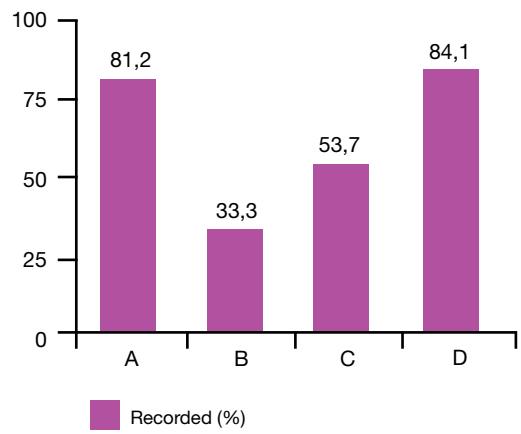
Representation of daily clinical record.

FIG. 2

TABLE IV

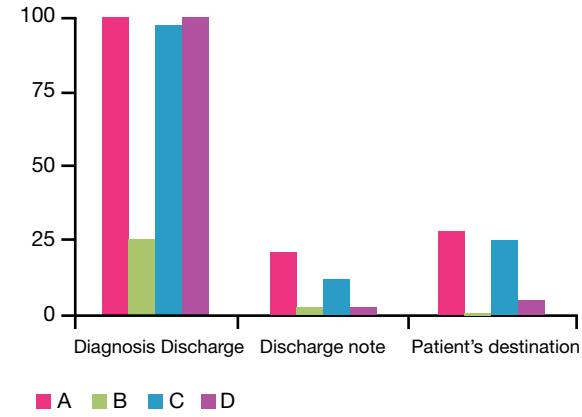
Clinical History %

	Internal Medicine	Current History	Personal Background	Family Background	General observation	Cardio/P/ Abd	Other
A	100	96	79.2	5.9	73.8	62.9	67.9
B	98.8	53.5	25.6	1.2	2.3	4.7	59.3
C	100	70.5	62.8	38.5	15.4	34.6	46.1
D	95.9	69.9	47.9	1.3	46.6	50.7	45.2



Representation of supplementary tests record.

FIG. 3



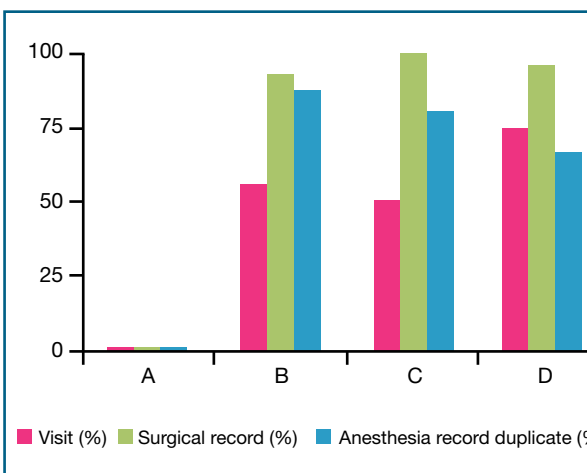
Distribution of clinical discharge records per service.

FIG. 4

TABLE V

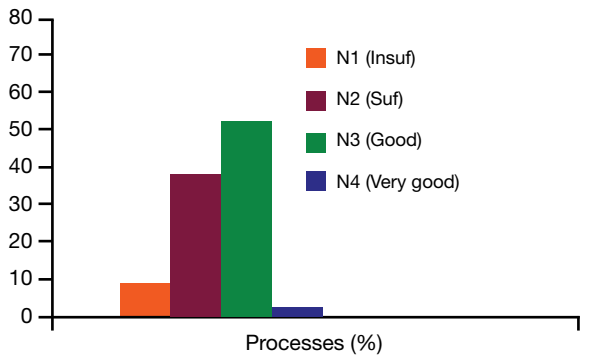
Discharge record (%)

	Discharge diagnosis	Discharge note	Patient's destination
A	100	19.8	29.7
B	27.9	3.5	1.2
C	96.2	10.3	26.9
D	100	2.7	5.5



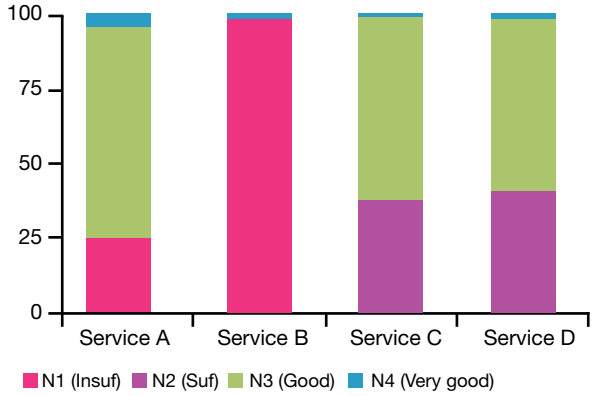
Representation of surgical procedures records.

FIG. 5



General representation of services by assessment level.

FIG. 6



Distribution of levels per service.

FIG. 7