

Effect of a strategy for improving quality of care based on systematic measurement of and feedback on quality indicators in 3 highly prevalent emergency department situations

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Objectives: To assess the effect of ongoing measurement of quality indicators affecting 2 different clinical processes that are highly prevalent in emergency care (acute asthma exacerbation and nephritic colic) and also on the use of major opiates; to determine the effect of giving staff information about the results of measurements and providing training on how to improve the quality indicators.

Methods: Systematic recording of measures relating to various aspects of care for processes that are highly prevalent in the emergency department caseload. Records were started in 2005. The quality-of-care indicators reflected consensus-based protocols. When substantial deviations from recommendations were identified, sessions to provide information and training were scheduled. The sessions included reviews of cases. The results of these strategies were analyzed for 2006 through 2012. Statistics on the following indicators were compiled retrospectively month by month. For asthma exacerbations, we compiled data on the recording of respiratory frequency and peak-flow volume, the ordering of chest x-rays and arterial blood gas analysis, and admissions. For nephritic colic, we examined the recording of pain assessment on a categorical numerical pain scale, the ordering of abdominal x-rays and ultrasound imaging, urology consultations, admissions to the observation area or hospital ward, and emergency revisits within 72 hours. We also collected data on the use of major opiates.

Results: A total of 1767 asthma exacerbations, 6114 cases of nephritic colic, and 22 751 prescriptions for opiates were evaluated during the study period. All records were included. Most quality indicators failed to meet recommended levels in 2006. The training strategy led to small changes, only some of which reached statistical significance. In the treatment of asthma exacerbation, the number of x-rays ordered decreased ($P < .05$). The measurement of respiratory frequency tended to rise in frequency but the difference was not significant ($P = .13$), and the frequencies of orders for arterial blood gas analyses and rates of hospital admissions were similar ($P = .66$ in both cases). In the treatment of nephritic colic, admissions to the observation area increased ($P < .001$) and hospital admissions decreased ($P = .01$). Urology consultations and the number of x-rays also decreased ($P < .05$ and $P < .01$, respectively), while the number of ultrasound imaging studies tended to decrease ($P = < .07$). Revisits remained similar ($P < .55$). The use of opiates for pain control increased ($P = .001$). Targets had been reached for only 4 of 13 indicators at the end of the study period.

Conclusions: The systematic monitoring of statistics on clinical processes as part of a strategy to improve quality-of-care indicators and feedback on results during training sessions has had some positive effects. However, the changes have been small and they became evident only over the medium to long term. [Emergencias 2014;26:179-187]

Keywords: Quality indicators. Continuous monitoring. Emergency health services. Asthma. Nephritic colic. Opiates.

Introduction

Although the measurement of indicators is not an end in itself, it is an inevitable stage in the cycle of quality improvement and a prerequisite for correct decision-making^{1,2}. Emergency departments (ED) should not be exempt from this task. Currently, the most prevalent diseases and syndromes have diagnostic and therapeutic protocols to be completed by attending physicians. Many of these protocols have been elaborated and even promoted by emergency physicians themselves to facilitate uniform management of these patients in the ED¹⁻⁴. However, these protocols are not always adopted. Thus, only 76.5% of patients with atrial fibrillation receive antiplatelets⁵, only 39% of patients with atrial fibrillation meeting the criteria for anticoagulation actually receive it¹ and less than 40% of patients with decompensated heart failure attending a hospital ED receive beta-blockers or angiotensin-converting enzyme inhibitors⁶. The reasons behind this lack of adherence to the protocols have not been the object of many studies. In some cases, the protocols do not match the realities of everyday health care or the resources available, or in other cases there is no clear information for non-standard patients, such as the very elderly or multiple comorbidity patients. In other cases, paper-format guidelines may be ineffective to change the way professionals act and, by contrast, directives from the head of the department may be more relevant in achieving greater compliance with these protocols⁷⁻⁹.

Whatever the reasons for non-compliance, the services involved tend to run training courses to correct this trend. However, there are few data in the literature about these actions and their results. In a study conducted in six Spanish EDs the authors assessed the degree of improvement in 5 aspects of the management of acute heart failure after training interventions. In 3 of them the improvement was imperceptible¹⁰. A predefined strategy of continuous improvement of clinical processes based on monitoring indicators to improve adherence to protocols and decrease clinical variability may be useful for this purpose. For these reasons, the objectives of this study were to define a set of indicators in three processes prevalent in the ED (asthma exacerbation, renal colic and use of major opioids), define standards and assess the degree of compliance. Subsequently, the effect of continuous indicator measurement

was assessed and the results made known to the professionals involved.

Method

This was a retrospective study of the results of a strategy of continuous improvement of managing clinical processes implemented in the Hospital Universitario Donostia (HUD), a 1,115 bed hospital serving a population of 354,114 inhabitants. It is also the referral hospital for a region with 740,193 inhabitants. The hospital has a general emergency department (ED), where the present study was performed, which attends all kinds of emergencies except for pediatric and obstetric-gynecological cases. For them, the hospital has separate emergency services within the center. On average, the ED attends around 90,000 visits per year.

The study period lasted from January 2006 to December 2012 (7 years). During this period, the physical structure, the provision of emergency medical personnel and organization have remained stable. In terms of physical structure, the service has 28 primary attention and 16 observation cubicles. The staff comprise 36 senior doctors, 2 section chiefs and one department head, and 28 of these 39 doctors have been constant during the 7-year study. The distribution of work is by variable shifts performed by senior doctors and section chiefs. Furthermore, this team is supplemented daily with 7-8 residents, approximately half of the first year. This system of work has also presented changes during the study period.

In 2005 a policy of systematic measurement of various aspects of health care in different prevalent diseases began in the ED. At that time, there were no in-house protocols for most of the processes studied. A number of indicators were defined, and to the extent possible, those promoted by various scientific societies⁹⁻¹¹ were used. In those in which there was no standard defined in the literature, group meetings of experts were held to define them based on previously published data and own experience. Indicators were always chosen for their clinical significance or relevance in the management of the care process in question. The measurement of indicators did not include individual examination of each patient, but consisted of an overall quantification, which included all patients with a particular process seen during the study period. The basic measurement period was the

month, but then the results were grouped for whole years to circumvent possible seasonal differences in certain processes. In those cases where notable deviations from commonly accepted standards were observed, briefings on the results of these indicators were given, as well as guidelines and care protocols in the literature for ED practice. Attendance of these briefings were mandatory, on a weekly basis and involved all physicians and medical residents. The outcome of these indicators was presented and protocols / guidelines and treatment were reviewed. In addition, during these sessions the possible reasons for divergence or disagreement were openly discussed.

For the present study, three prevalent ED situations were chosen: the management of asthma exacerbations, renal colic and the use of major opioid drugs. The reason was that all were subject to generalized deviation from optimum standards and we felt there was scope for improvement (Table 1). In the assessment of patients with asthma exacerbation, we documented the percentage of cases in which respiratory rate was noted, with at least one measurement of peak airflow, chest X-ray and arterial blood gas (ABG) test, and the number of such patients that were admitted to hospital (some of these parameters were not initially collected, in 2006 and 2007). The denominator for all these cases was the number of patients with a primary diagnosis of bronchial asthma treated in the ED but not intubated. In the case of renal colic, the percentages of cases were reported with measurement of pain using a numerical quantitative scale on initial assistance, with an X-ray and ultrasound, and inter-consultation with the department of urology, admission to the ED observation area or the hospital, and revisits to the ED for the same reason within 72 hours. The denominator for all cases was the number of patients with a primary diagnosis of renal colic in the ED. Finally, to study the use of major opioids, we recorded the total number of morphine, alfentanil and dolantin vials used during the study period. Almost from the beginning it was decided to eliminate dolantin from the ED drugs stock given its low beneficial effect compared to other opiate derivatives^{12,13}. The number of vials were then divided by the total number of ED visits to obtain the total number of vials used per 100 ED visits.

Regarding asthma exacerbation, in most cases it is easy to decide which patient needs radiological examination or a particular analytical

Table 1. Baseline values of the indicators evaluated in the present study, before beginning the training activities, and recommended or defined a priori as desirable standards

	Baseline indicator (year measurement)	Standard reference
Worsening of asthma		
Measured respiratory rate	91 (2006)	100
Peak-flow measurement	79 (2006)	> 90
Chest X-ray	88 (2006)	20-30
Arterial blood gas	52 (2008)	< 20
Admission	32 (2006)	< 25
Renal colic		
Measurement of pain using a scale	44 (2007)	100
Radiography	77 (2006)	< 60
Ultrasound	24 (2006)	< 20
Inter-consultation	28 (2006)	< 5
Stay in ED observation area	3 (2006)	10-20
Hospital admission	20 (2006)	< 10
Revisits within 72 hours	12.3 (2007)	< 10
Major opioid drugs		
Dose consumed (ampoules / 100 patients treated)	2.24 (2006)	> 5

test, but it is difficult to find data to track individualized interventions without a clinical history. Therefore, to set the standard, different strategies were designed. For asthma patients, good clinical practice necessarily requires measurement of respiratory rate, so our working group considered that this indicator should be adhered to in 100% of cases. The measurement of peak flow is useful for severity rating and treatment decisions, so, based on the recommendations of other authors, we felt that adherence should be higher than 90%^{14,15}. The requirement for a chest X-ray was also based on published recommendations, but limited to patients with clinically suspected pneumomediastinum, pneumothorax, suspected consolidation, vital risk, lack of satisfactory response to treatment and need for mechanical ventilation¹⁶. However, the authors did not set a minimum percentage for this indicator. Our working group accepted these recommendations but also felt they should be applied to patients requiring admission, considering that adherence for this indicator should be between 20 and 30%. The literature indicates that arterial blood gas (ABG) test should be performed whenever the oxygen saturation measured by pulse oximetry is less than 92%¹⁵. In our population, this situation occurs in 14% of cases, so, after adding a margin of safety, the working group set the performance standard at less than 20% of cases. Regarding the need for admission of these patients, there are few studies providing data on how many cases should be admitted, but one reliable source argued

that this ratio should be less than 25%¹⁷, so that this figure was adopted as the standard.

In the care of patients with suspected renal colic, the use of a pain scale has proven useful for initial assessment, therapeutic strategy and clinical course evaluation, with most authors set the standard at 100% adherence¹⁸. In contrast, the systematic abdominal radiography is controversial because of its low sensitivity and specificity, and it only seems appropriate in cases with a first episode¹⁹. According to our experience, this situation in our population occurs in less than 60%, so the group adopted this value as standard. The use of ultrasound is indicated in cases of solitary kidney, pregnancy or suspected complications or when the diagnosis is uncertain¹⁹ and when performed early, up to 30% of acute obstructions²⁰ are not detected. Again, the working group had to rely on their experience, and given that the above conditions do not exceed 20% of the cases, this value was adopted as standard. Furthermore, there are no studies that set a standard for consults with urology and admission to the ED observation area or hospital ward, so standards were also adopted based on ad hoc consensus. According to our agreement with the department of urology, the need for consultation in the ED is limited to those situations where the patient has fever, renal failure or diagnostic doubt, situations that occur in less than 5%, and this was the standard adopted. Regarding admission to the ED observation area of these patients, we limited this to cases with uncontrolled pain or oral intolerance, as an alternative to hospitalization. Therefore, we thought it was reasonable to set a standard for admission to the ED observation area between 10 and 20%, and hospital admission of 10%, a lower level, since this admission plan would be reserved for those patients with complicated renal colic. Regarding revisits for the same reason within 72 h, based on published data, we considered that this should occur in less than 10% of cases²¹. Though this figure may seem high, in our experience renal colic is, along with the epistaxis, the process generating most revisits within the first 72 hours after discharge.

The use of opioids for pain control in the ED is a quick and reliable measure. Currently, intravenous administration of opioids for severe acute pain in the ED is recognized as inadequate^{22,23}. Here again, we found no published experience, so, based on our experience, we considered that an amount greater than 5 vials

per 100 visits for pain would be an appropriate use.

Qualitative variables were expressed as absolute frequencies and percentages; and quantitative variables as means and standard deviation (SD). To assess the effect of time on each of the indicators, a linear regression model was used. For all comparisons, differences with a p value was less than 0.05 were considered statistically significant. Statistical analyses were performed with Excel and SSPS v15.0.

Results

The study included 1,767 asthma exacerbations, 6,114 cases of renal colic, and the administration of 22,751 vials of opiates were studied. Table 2 shows indicator evolution over the study period for the management of asthma exacerbation. Overall, respiratory rate was measured in 94% of patients and peak-flow in 84%; chest X-ray was performed in 69%, one ABG in 51%, and 24% were admitted. Table 3 refers to renal colic and shows that pain measurement was performed using a pain scale in 51% of patients, 69% underwent plain abdominal X-ray and 20% ultrasound examination; 12% had a consultation with a urologist; 10% were admitted to the ED Observation area, 19% were hospitalized and 9% revisited the ED within 72 hours. Finally, the use of major opioid drugs over this period was 3.62 doses per 100 patients seen in the ED (Table 4).

The evolution of these indicators over time showed positive trends towards correcting the anomalies found, although not significantly so in all cases (Figure 1). We observed a tendency to increase the measurement of respiratory rate ($p = 0.13$) and peak-flow ($p = 0.96$) in asthmatic patients, and a tendency to decrease the request for chest X-rays ($p < 0.05$), ABG ($p = 0.66$) and hospital admissions ($p = 0.66$). In renal colic, we observed a tendency to increase the use of a pain scale ($p = 0.59$) as well as admission to the ED observation area ($p < 0.001$). We also observed a reduced number of requests for X-rays ($p < 0.01$), ultrasound ($p = 0.07$), inter-consultation with the urology department ($p < 0.06$), hospitalization ($p = 0.01$) and the number of ED revisits within 72 hours reduced ($p = 0.001$). Finally, we found a significant increase in the use of major opioids in the ED, which increased from 2.24 vials per 100 patients seen in the ED in 2006 to 4.67 in 2012

Table 2. Evolution of different aspects of care in the approach to patients with exacerbation of asthma in the emergency

Year	Patients attended in ED N	Measurement of respiratory rate N (%)	Measurement of peak-flow N (%)	Performance of chest X-ray N (%)	Performance of ABG test N (%)	Admission N (%)
2006	229	209 (91)	181 (79)	201 (88)	NR	74 (32)
2007	219	209 (95)	198 (90)	160 (73)	NR	46 (21)
2008	241	212 (88)	213 (88)	173 (82)	111 (52)	60 (28)
2009	259	243 (94)	194 (75)	187 (72)	104 (40)	56 (22)
2010	327	314 (96)	271 (83)	209 (64)	121 (37)	84 (26)
2011	250	242 (97)	215 (86)	184 (74)	111 (44)	68 (27)
2012	242	234 (97)	204 (84)	153 (63)	99 (41)	59 (24)
Total	1,767	1,663 (94)	1,476 (84)	1,066 (69)	546 (51)	373 (24)

ABG: arterial blood gas; NR: not recorded.

($p = 0.001$). With regard to the standards set in 2006, it is noteworthy that despite the trend to improvement, at the end of the study in 2012, the initial standards were only met in 4 of the 13 indicators: in the percentage of admission for asthma exacerbation (24%), and ultrasound (18.5%); ED observation (14.4%) and revisit within 24 hours (6.8%) for renal colic.

Discussion

The present study revealed two important aspects. First, continuous monitoring of process allows one to identify areas for improvement which, if acted upon with feedback and corrective actions, can optimize performance and sustain continuous quality improvement. Second, it is clear that, although carried out in a systematic and repetitive way, with joint analysis of all possible shortcomings and suggestions for improvement, the effect is always discreet (but positive) in the short term and, consequently, we expect better results in the medium and long term.

Indicators and standards are a key point in improving the quality of any process, including those performed in the ED. Once established, it

is necessary to lay down feedback time points to have a general idea about the evolution of these processes in these services. Although measuring indicators is a global process of control and does not analyze each medical act individually, it does allow an overall view of how people are doing things in a certain process, which greatly simplifies monitoring. If these indicators diverge from the standards at these time points, this is a warning mechanism about the need for a more detailed study to identify the causes and find areas for improvement. This is what was done in this study, although space limitation did not allow such detailed description of all the dynamics of the process. Furthermore, the systematic analysis of indicators allows a deep understanding of reality and avoids subjectivity or mere personal opinion. It also allows assigning importance to certain processes, and involves the attending staff, as well as comparisons with other services, always striving for excellence.

The absence in some cases of established standards is not a barrier: it forces us to establish them *de novo* on the basis of published work and own experience, but always considering the characteristics of the population. In general, they tend to be more of an ideal value

Table 3. Evolution of different aspects in the care of patients with renal colic in the emergency department

Year	Patient attended N	Pain scale test N (%)	Radiography N (%)	Ultrasound N (%)	Inter-consultation N (%)	Stay in ED Observation N (%)	Revisit <72 h N (%)	Admission N (%)
2006	1,756	NR	1,346 (76.7)	423 (24.1)	486 (27.7)	61 (3.5)	166 (9.5)	354 (20.2)
2007	1,650	108 (44.4)	1,251 (75.8)	405 (24.5)	383 (23.2)	83 (5.0)	156 (9.5)	391 (23.7)
2008	1,727	135 (54.9)	1,318 (76.3)	355 (20.6)	141 (8.2)	170 (9.8)	154 (8.9)	312 (18.1)
2009	1,775	205 (42.3)	1,293 (72.8)	287 (16.2)	118 (6.6)	159 (9.0)	156 (8.8)	324 (18.3)
2010	1,680	920 (53.7)	1,108 (66.9)	297 (17.7)	131 (7.8)	204 (12.1)	126 (8.1)	257 (15.3)
2011	1,742	910 (52.2)	999 (57.3)	342 (19.6)	140 (8.0)	254 (14.6)	145 (8.3)	283 (16.2)
2012	1,686	828 (49.1)	951 (56.4)	310 (18.4)	103 (6.1)	243 (14.4)	127 (7.5)	238 (14.1)
Total	6,114	3,106 (50.8)	8,266 (68.8)	2,419 (20.2)	1,502 (12.5)	1,174 (9.8)	1,159 (8.6)	2,159 (18.6)

NR: not recorded.

Table 4. Evolution of the use of major opioids in the emergency department (ED)

Year	N° ED attentions	N° doses of opioids used	Average monthly opioids used	N° doses of opioids per 100 cases
2006	96,089	2,155	180	2.2
2007	93,421	2,899	242	3.1
2008	92,295	3,455	288	3.7
2009	90,083	3,387	282	3.8
2010	85,634	3,286	274	3.8
2011	85,663	3,596	300	4.2
2012	85,071	3,973	331	4.7
Total	628,256	22,751	271	3.6

than a target to be easily achieved. This was the premise of the working group, which is reflected in the fact that after 7 years of study, despite the observed improvements, the standard was only achieved in 4 of the 13 proposed indicators.

The three processes evaluated in this study were chosen for their prevalence and possibility of improvement at the time of study initiation. The particular aspects of each of the indicators are beyond the scope of this paper. Overall, the interventions in this study were diverse but not exhaustive. Others may be implemented, depending on the characteristics and idiosyncrasies of each ED. The guidelines and protocols should be adapted to the needs and resources that are available in each center and at all times.

Examples of valid generic interventions for multiple processes are computerized help, cards or posters for physician rooms, flyers for residents, brochures for patients, published guidelines or financial incentives⁵. In this regard, recommendations backed by scientific evidence are best accepted, as are those that are precise and clear, which does not always happen. For example, it is probably useful to test the feasibility and acceptability of the new guidelines before implementation. That would also allow checking that the medical staff has understood the information⁶. Additionally, involvement of the head of department has been shown to be a major factor for adherence⁷. For many of these interventions, the training sessions within the department itself are of paramount importance. Therefore, this should be a frequent activity performed on a regular basis and encouraged in all EDs. However, as shown here, the effects of such interventions may be discreet and only manifest later. This should not discourage us

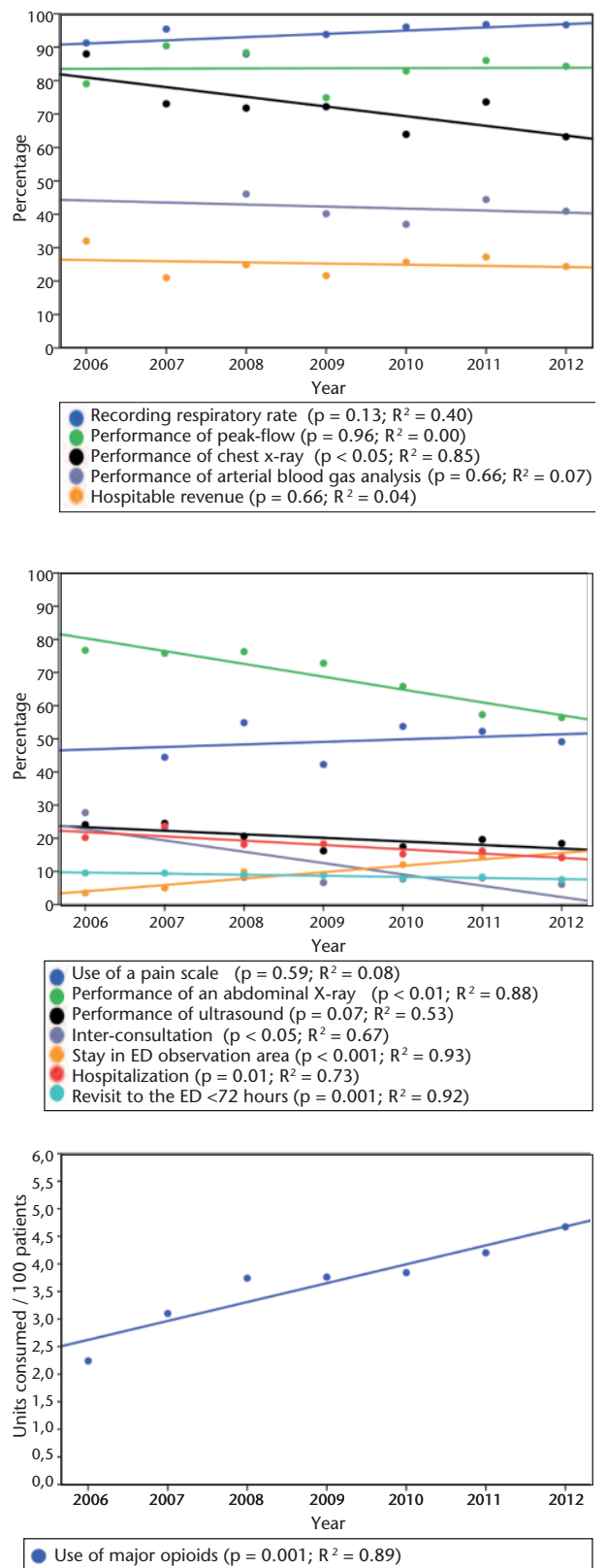


Figure 1. Analysis of the evolution of different markers in the three training interventions for ED physicians (above: asthma exacerbation; middle: renal colic; below: use of major opioids).

from implementing them. On the other hand, it is also difficult to explain why, with the same interventions, the standard for some indicators was achieved but not for others. It is possible that some of the standards set were over-ambitious, but we believe it is important to have this ambition when setting them.

The present study has certain limitations. It was a single center study, which limits external validity. It made no qualitative assessment of the medical act in the ED for individual cases, only of previously defined indicators. As mentioned, this provides an overall analysis of the evolution of a process, so even when the standard of a given indicator is met, there may be individual acts that diverge from the standard. For example, the desired standard for ABG of less than 20% in asthma exacerbation was obtained but that does not mean that some patients were incorrectly subject to the test and others were incorrectly not subject to the blood gas test, and both types of errors cancelled each other out; so the indicator did not detect these errors.

On the other hand, staff knowledge about the periodic measurement of these indicators may have had a positive impact on the results simply due to the fact of being measured. The processes studied here were selected on a discretionary basis, and we cannot extend the results observed to other different processes. Another limiting factor is the high turnover of residents in the ED, who are directly responsible for a large number of discharges (30% in our center). However, most discharges are authorized by a senior doctor who signed them together with the first-year residents.

Perhaps residents in their second year or more are subject to a lesser degree of supervision and they can make certain decisions independently. It is possible that the interventions involving permanent doctors had insufficient impact on the residents and this may have played a role in the non-achievement of certain desired goals. Determining adherence per individual for each of the medical groups would have allowed clearer identification of areas for improvement, but this was not done in this study.

Despite these limitations, the results of the present work are in line with other published experiences^{10,24-28} and illustrate the beneficial effects of a policy of continuous quality improvement in the ED based on monitoring sensitive indicators and feedback to practitioners, while

demonstrating the need for maintenance over time to achieve satisfactory results.

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Efecto de una estrategia de mejora de la calidad asistencial basada en la medición sistemática de indicadores en tres procesos clínicos de alta prevalencia en urgencias y comunicación de los resultados a los profesionales

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Objetivo: Evaluar los efectos de la monitorización continua de indicadores en dos procesos clínicos diferentes en urgencias (manejo de la agudización asmática y atención del cólico nefrítico) y en el uso de fármacos opiáceos mayores; y determinar el efecto de la comunicación de sus resultados a sus profesionales y de las intervenciones formativas encaminadas a la mejora de sus indicadores.

Método: En el año 2005 se inició una política de medición sistemática de distintos aspectos de la atención médica en diferentes patologías prevalentes en urgencias de acuerdo a protocolos consensuados y se definieron indicadores para su cuantificación. Cuando se observaban desviaciones destacables de los estándares, se pusieron en marcha sesiones informativas, revisión de casos y acciones formativas continuadas basadas en sesiones clínicas. Se analizan los resultados del periodo 2006-2012. Se cuantificaron mensualmente de forma retrospectiva los siguientes indicadores: A) agudización asmática: registro de la frecuencia respiratoria, realización del *peak-flow*, radiografía de tórax y gasometría arterial, e indicación de ingreso; B) cólico nefrítico: medición del grado de dolor mediante una escala de categoría numérica (ECN), realización de radiología de abdomen y de ecografía, interconsulta al servicio de urología, ingreso en observación de urgencias o en hospitalización y reatenciones en urgencias en menos de 72 horas; y C) empleo de opiáceos mayores en los procesos habituales.

Resultados: Se evaluaron 1.767 agudizaciones asmáticas 6.114 cólicos nefríticos y la administración de 22.751 ampollas de opiáceos. Se incluyó el 100% de los registros. En 2006, la mayoría de indicadores se encontraban por debajo de los estándares recomendados. Las acciones formativas evidenciaron mejoras discretas (en algunos casos estadísticamente significativas): A) agudización asmática: aumentó la medición de frecuencia respiratoria ($p = 0,13$) y disminuyeron las radiografías ($p < 0,05$), gasometrías arteriales ($p = 0,66$) e ingresos en planta ($p = 0,66$); B) cólico nefrítico: incrementaron la medición del dolor ($p = 0,59$), los ingresos en observación ($p < 0,001$), y disminuyeron radiografías ($p < 0,01$) y ecografías ($p = 0,07$), interconsultas con urología ($p < 0,05$), ingresos hospitalarios ($p = 0,01$) y reatenciones a las 72 horas ($p < 0,55$); y C) incrementó el uso de opiáceos mayores para el control del dolor ($p = 0,001$). Al final del periodo, sólo en 4 de 13 indicadores se había alcanzado el estándar propuesto.

Conclusión: La monitorización continua de procesos clínicos asociada a una estrategia predefinida de mejora continua basada en la definición de criterios de calidad en los procesos clínicos, la medición sistemática mediante indicadores y la comunicación de los resultados a los profesionales tienen efectos positivos, aunque éstos son discretos y se hacen más evidentes en el medio y largo plazo. [Emergencias 2014;26:179-187]

Palabras clave: Indicadores de calidad. Monitorización continua. Servicio de urgencias. Asma. Cólico nefrítico. Opiáceos.