

Consensus on quality indicators in ambulatory surgery: a Delphi survey conducted in Portugal

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Abstract

Aim: To establish consensus on the most appropriate quality indicators for evaluating the quality of Ambulatory Surgery (AS) in Portugal.

Methods: Data were collected using a modified e-Delphi technique in two rounds. A total of 58 potential quality indicators in AS were assessed by 27 experts.

Keywords: Ambulatory Surgery; Quality Indicators, Health Care; Delphi Technique; Clinical Governance.

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Results: In the first round consensus was found for accepting 44 indicators. The data analysis that took place in the second round revealed consensus for including 10 more quality indicators.

Conclusion: The quality indicators in AS used in Portugal are in line with the literature recommendations, but they only reflect some aspects of the quality process.

Introduction

Quality of care is “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (1,2).

The dimensions of healthcare quality to be measured should be the definable, measurable and actionable, attributes of the system that are related to its functioning to maintain, restore or improve health. These dimensions incorporate effectiveness, safety, responsiveness, patient centeredness, accessibility, equity, efficiency, appropriateness, and timeliness (3).

Quality indicators must be simple and easy to obtain in order to implement an organized quality control system that is completely integrated with the normal activity of ambulatory surgery centres (4).

Regarding Ambulatory Surgery (AS), some authors identify a need for better quality measures (5). Research needs to focus on identifying quality metrics that convey patient’s experience through the structure, outcomes, and efficiency of care. Measuring quality outcomes will be important for patient safety (6).

A thorough analysis of the existing literature was conducted to identify the globally used quality indicators in AS (7). There is no clear consensus on which indicators are most suitable for assessing quality in AS nor how to define them. These include hospital readmission rates, post-operative complications, patient satisfaction, waiting times, adherence to clinical guidelines, and resource use efficiency (ambulatorization rates).

We have sought to categorise various quality indicators found in the literature into a theoretical framework through which metrics could be organised and analysed. The approach first conceptualised by Donabedian, describes indicators as either structure, process or outcome and is widely accepted and a useful way of categorising health care quality indicators (8).

Structure indicators represent the necessary conditions for the provision of a given quality of health care. They refer to the attributes of the settings in which healthcare occurs and do not ensure that the appropriate processes will be carried out or that satisfactory outcomes will be achieved (3,8).

Process indicators correspond what is actually done in giving and receiving healthcare. They denote the measures of the delivery of appropriate health care to the relevant population (3,8).

Outcome indicators represent the effects of care on patients’ health status (8).

It is necessary to standardize the assessment of quality in AS to obtain information on the performance of services, support decision-making, monitor the implementation of improvement measures, compare results over time and benchmark between different institutions.

This study aims to establish consensus on the most appropriate quality indicators for evaluating the quality of AS in Portugal.

Methods

Delphi is a scientific method to organize and structure an expert group discussion aiming to generate insights on controversial topics with limited information (9).

There are no standard quality parameters to evaluate Delphi methods in healthcare research. However, the Delphi method requires essential elements, such as anonymity, iteration, controlled feedback, and statistical stability of consensus (10). Using this method in this study, researchers provided anonymous communication between individuals with expertise in AS, with the goal of seeking their opinion in an iterative and structured way, aiming to achieve a consensual position (11).

A modified e-Delphi technique was used for this study. In the preparatory phase, a literature review was carried out (7) as well as a focus group to discuss and validate the first questionnaire to be used in the study, thus justifying its designation as a modified technique. The research team decided to conduct the Delphi in two online rounds due to the ease of use, time savings, ease of organising and data processing and the guarantee of the participants’ anonymity (10).

Identification of experts

The consulted authors recommend the formation of expert panels with different levels of experience. Such composition ensures a wider range of opinions (collective wisdom), by prioritising individuals with practical knowledge and experience of the subject under study. Academic qualifications are not mandatory for all experts. The involvement of multiple stakeholders, with different perspectives on the quality of care, enhances the study’s findings. (11,12).

A purposive sample of national participants was selected for the expert panel of this Delphi study. To ensure the aforementioned

features, the following inclusion criteria were used: 1) the participant had current clinical experience in AS, and 2) the participant had experience in research, teaching, practice, or policy regarding AS.

There is no consensus in the literature regarding the number of experts to include on the panel, although the consulted authors recommend a panel with 10 to 30 experts (9–11,13). Twenty-seven experts were selected, informed about the study and invited by email to participate in both rounds.

Questionnaire development & Data collection

During the preparatory phase of the study, we developed its initial conceptualisation and a literature review to map the quality indicators globally used in AS (7). Subsequently, semi-structured interviews were conducted with a panel of 5 experts to further refine the results of the scoping review and assist with formulating the questions for the first round.

During the second phase of the study, two rounds of questionnaires were conducted, and the data from each round was analysed. The Qualtrics® platform was selected to program the questionnaire and collect data.

A version of the questionnaire was prepared for the first round, consisting of three sections: 1) informed consent to participate in the study; 2) sociodemographic characterization of the participant; 3) quality indicators in AS. In section 3, open response fields were provided for experts to submit comments, opinions, and suggestions on the study's subject. A 5-point Likert scale was used, where 1 corresponds to "Not sensitive", 2 to "Slightly sensitive", 3 to "Moderately sensitive", 4 to "Sensitive" and 5 corresponds to "Very sensitive".

Data analysis

Quantitative data analysis was performed using the IBM Statistical Package for the Social Sciences, version 28.0. For each response item, the mean, median, standard deviation, coefficient of variation (CV), content validity index (CVI), and percentage of responses 1 and 2 were calculated. The coefficient of variation determines the stability of responses for each item. It is calculated by dividing the standard deviation by the mean. (14). This measure is reported as a percentage with consensus being achieved when there is low dispersion in the results. Low dispersion is when the coefficient of variation (CV) is $\leq 15\%$, medium dispersion is when CV ranges between 15% and 30%, and high dispersion is when $CV \geq 30\%$. The CVI measured the percentage of agreement for each item. In this study, it was calculated by summing the number of responses "3", "4", and "5", dividing by the total number of responses, and reporting it as a percentage. For this study, consensus was defined as $CVI \geq 80\%$.

If any of the experts were to make comments that expressed doubt or incomprehension regarding any item, regardless of its statistical analysis, that item would move on to the next round. The consensus criteria for accepting or excluding items were defined as shown in Table 1.

The results from the first round were analysed and compiled into a report to provide feedback to the experts. The second questionnaire was designed by eliminating the accepted and excluded items in the first round, retaining those that did not reach a consensus or raised doubts among the experts.

The report of the first round and the link to the second questionnaire were sent simultaneously via email to the same group of experts, with the link remaining accessible for 4 weeks.

The results of the second round were analysed in the same way described for the first round. Indicators that did not reach consensus were discussed within the research team to decide on their

Table 1. Criteria Defined for Consensus.

Accept item (cumulative)	80% of the responses with a rating ≥ 3 ($CVI \times 100 \geq 80\%$) Median ≥ 3 ; No doubts or misunderstandings regarding the item were mentioned by the experts.
Exclude item (non-cumulative)	80% of the responses with a rating ≤ 2 ; Median ≤ 2 .
No consensus	Items not falling into the other classifications.

inclusion in the indicator summary. The decisions were based on the bibliographic research and statistical analysis carried out. The expert panel was informed of the second round results.

Ethical considerations

The proposal for the study was reviewed and approved by the Ethics Committee for Health of the Universidade Católica Portuguesa. All participants had access to the consent form on the first page of the questionnaire, which they had to read and accept in order to proceed with the questionnaire.

Results

Expert panel

The socioprofessional profiles of the participants in both rounds are presented in Table 2. In the second round, 72.7% of the experts had participated in the previous round ($n=16$) and the rest had not.

Table 2. Socioprofessional characteristics of the participants.

Variables	Round 1	Round 2
Response rate	62.9	81.4
Age (mean, years)	46.53	47.18
Professional experience (mean, years)	22.88	23.27
Profession		
Nurse (%)	64.7	77.3
Manager/Administrator (%)	5.9	4.5
Doctor (%)	29.5	18.2
Academic degree		
Doctorate (%)	23.5	13.6
Master (%)	35.3	36.4
Degree (%)	41.2	50.00

The sample included professionals from public and private hospitals, from the Portuguese health regulator and from a nursing school.

In the Delphi survey preparation phase, 42 indicators were identified from the literature search and grouped according to the Donabedian's framework. Meetings of the research team and initial interviews with experts revealed the need to clarify some of the indicators found, bringing the number of indicators analysed to 58.

Delphi round one

The 58 potential quality indicators in AS were assessed by the experts in round one.

Regarding the structural indicators, consensus was reached on four items: the existence of protocols regarding clinical information provided to the patient and accompanying person, the existence

of a standardized record platform, the availability of guidelines for professional safety, and the existence of a quality manual. The remaining items did not receive consensus among the experts, continuing to the next round.

Concerning the process indicators, consensus was not reached on five items: number of pre-operative delays and incidents, provision of drugs upon discharge, moderate to severe pain in patients undergoing outpatient surgery, pre-operative nursing consultation rate (due to experts' misunderstanding), and surgical site hair removal.

Six of the outcome indicators analysed by the expert panel did not reach a consensus, proceeding to the next round of the Delphi panel: incidence rate of Anterior Segment Toxic Syndrome, number of hospital transfers, number of same-day admissions with hospitalization exceeding 24 hours, number of Emergency Department visits within 30 days following surgery, number of primary care visits within 30 days following surgery, and number of days until the patient resumes their daily activities after surgery.

In the following table (Table 3), a detailed analysis is presented, considering the previously established consensus criteria.

Delphi Round two

In the second round of the Delphi panel, three structural indicators, five process indicators and nine outcome indicators were analysed. Based on the analysis conducted, there was no consensus among expert panel for the item "Influenza vaccination compliance rate" and for the process indicator "Surgical site hair removal."

Of the nine outcome indicators analysed by the expert panel, two did not achieve consensus in the second round: incidence rate of Anterior Segment Toxic Syndrome, and Number of postoperative visits to primary care within 30 days. The quantitative analysis from the second round are presented in Table 4.

Discussion

The use of the Delphi technique in this study allowed the development of a profile of indicators suited to the reality of AS in Portugal.

To date, the knowledge regarding which quality indicators are used worldwide in AS has been mapped (7). This study highlights which of these indicators are truly useful in assessing the quality of AS from the perspective of Portuguese experts.

Initially, 58 indicators were presented to the expert panel, distributed across the three dimensions of Donabedian's model - structure, process and outcome. In the first round we found consensus for accepting 44 indicators. The data analysis that took place in the second round revealed consensus for including 10 more quality indicators.

Structure indicators

With regard to structure indicators, experts mentioned misunderstanding of the items "staff skill mix" and "Positive practice environments". Skill mix is a multi-component construct that seeks to capture the number, experience, and educational preparation of professionals working in a healthcare setting. To ensure that a patient needs are met, the appropriate number of professionals is available across the continuum of AS care, with a proper mix of education, skills and clinical experience (15).

Research has shown that positive working environments are related to higher job satisfaction among healthcare professionals, lower levels of burnout and reduced intent among employees to change their jobs (16,17). Thus, enhancing practice environments may help ensure quality of care and, consequently, improve organisational management and health outcomes improvement (16,18,19).

The indicator "Influenza vaccination compliance rate among healthcare personnel" did not meet the criteria for being accepted or excluded in the panel. Consequently, was further examined by the research team. Many healthcare guidelines recommend influenza vaccination for specific populations, including healthcare workers. Adhering to these guidelines demonstrates alignment with evidence-based practices. Influenza vaccination among healthcare workers has direct influence in patient safety, healthcare costs and healthcare workers' safety. However, this is not a AS specific indicator, and in the Portuguese context ASC are usually integrated in an hospital, which means that the ASC worker must comply with the hospital's guidelines for influenza vaccination. This justifies the exclusion of the indicator "Influenza vaccination compliance rate among healthcare personnel" from the quality indicators summary.

Process indicators

Regarding process indicators, in the first round the expert panel referred doubts and misunderstanding of the items "Number of preoperative delays and incidents" and "Nursing preoperative consultation rate". For this reason, they were submitted to a second evaluation. The data analysis revealed a clear consensus on both indicators.

Seven of the presented process indicators are those in use in Portugal, as defined by the Portuguese Healthcare Regulatory Authority: Medication supply on discharge, Education on discharge, Post discharge assessment within 24 hours, Selection of postoperative nausea and vomiting prophylaxis, Patient selection for administration of postoperative nausea and vomiting prophylaxis, Regular Postoperative pain evaluation in AS, Moderate to maximum pain in patients undergoing AS.

"Medication supply on discharge" and "Moderate to maximum pain in patients undergoing AS" did not reach consensus in the first round. These findings may suggest that it is necessary to review the indicators in use in Portugal, even though they are aligned with the current international knowledge.

Pain is Pain is one of the leading causes of delayed discharge leading to same day hospitalization, as well as consultation outside the hospital after discharge and re-hospitalization. Also, poor initial management of post-operative pain may lead to chronic pain (20).

The value of having a preoperative nursing consultation is well established. It is of paramount value in a reality where patients are expected to complete their perioperative journey within 24 hours (21,22). The initial consultation with the surgeon should be reinforced by a nursing consultation to reiterate information and recommendations, and answer patients' additional doubts and questions (20).

The indicator "Surgical site hair removal" is not specific to AS and did not reach consensus among experts in any of the rounds, indicating that despite the extensive literature on this topic, doubts and constraints still exist in its operationalization (23,24).

Result indicators

Toxic Anterior Segment Syndrome (TASS) is a rare and serious postoperative complication that can occur after cataract surgery or other anterior segment eye surgeries. TASS is characterized by inflammation and other symptoms that affect the anterior segment of the eye, which includes the cornea, iris, lens, and the space between these structures. TASS typically manifests within the first 12 to 48 hours after surgery. The condition is usually non-infectious and is caused by a combination of inflammatory responses to substances introduced into the eye during surgery. These substances might include residual detergents, ophthalmic viscosurgical devices, preservatives, or other contaminants (25).

Table 3. Quantitative analysis from round I.

		Mean	Median	Standard deviation	CV (%)	CVI (%)	Responses 1 or 2 (%)	Decision
<i>Structure Indicators</i>								
1.	Existence of protocols regarding clinical information provided to patients and relatives	3.88	4	0.332	8.56	100	0	Accept
2.	Influenza vaccination compliance rate among healthcare personnel	2.53	3	1.007	39.82	52.941	47.1	No consensus
3.	Existence of unified record platform	3.76	4	0.437	11.61	100	0	Accept
4.	Existence of guidelines for occupational safety	3.59	4	0.870	24.25	88.235	11.8	Accept
5.	Staff Skill mix	3.29	4	0.849	25.77	76.471	23.5	No consensus
6.	Existence of a quality manual	3.82	4	0.393	10.28	100	0	Accept
7.	Positive practice environments	3.71	4	0.686	18.51	88.235	11.8	No consensus
<i>Process Indicators</i>								
1.	Number of preoperative delays and incidents	3.29	4	0.849	25.769	76.471	23.5	No consensus
2.	Medication supply on discharge	3.18	3	0.809	25.467	76.471	23.5	No consensus
3.	Education on discharge	4.00	4	0.000	0.000	100	0	Accept
4.	Post discharge assessment within 24 hours	3.76	4	0.562	14.936	94.112	5.9	Accept
5.	Same day cancellation rate	3.29	3	0.588	17.846	94.118	5.9	Accept
6.	Patient selection for administration of postoperative nausea and vomiting prophylaxis	3.53	4	0.624	17.687	94.118	5.9	Accept
7.	Selection of postoperative nausea and vomiting prophylaxis	3.41	4	0.712	20.877	88.235	11.8	Accept
8.	Regular Postoperative pain evaluation in AS	3.71	4	0.588	15.863	94.118	5.9	Accept
9.	Moderate to maximum pain in patients undergoing AS	3.24	3	0.831	25.697	76.471	23.5	No consensus
10.	Waiting times at the ASC.	3.35	3	0.606	18.084	94.118	5.9	Accept
11.	Compliance with staff safety guidelines	3.47	4	0.717	20.672	88.235	11.8	Accept
12.	Nursing preoperative consultation rate	3.71	4	0.588	15.863	94.118	5.9	No consensus
13.	Safe surgery checklist correct use rate	3.76	4	0.437	11.614	100	0	Accept
14.	Safety events incidence rate	3.41	4	0.870	25.508	88.235	11.8	Accept
15.	Safety events report rate	3.65	4	0.493	13.507	100	0	Accept
16.	Medication errors incidence rate	3.59	4	0.870	24.253	88.235	11.8	Accept
17.	Correct timing of prophylactic IV antibiotic rate	3.65	4	0.606	16.625	94.118	5.9	Accept
18.	Surgical site hair removal	2.82	3.00	1.015	35.934	64.706	35.3	No consensus
<i>Result Indicators</i>								
1.	Postoperative complications rate – bleeding	3.53	4.00	0.717	20.327	88.235	11.8	Accept
2.	Postoperative complications rate – hematoma	3.41	4.00	0.712	20.877	88.235	11.8	Accept
3.	Postoperative complications rate – wound separation	3.41	4.00	0.870	25.508	88.235	11.8	Accept
4.	Postoperative complications rate – ischemia	3.35	4.00	0.931	27.781	82.353	17.6	Accept

Table 3 continues ...

		Mean	Median	Standard deviation	CV (%)	CVI (%)	Responses 1 or 2 (%)	Decision
5.	Postoperative complications rate – postoperative hypertension	3.06	3.00	0.966	31.592	82.353	17.6	Accept
6.	Postoperative complications rate – hypoxemia	2.94	3.00	0.899	30.578	82.353	17.6	Accept
7.	Postoperative complications rate – toxic anterior segment syndrome	3.06	3.00	0.899	29.402	76.471	23.5	No consensus
8.	Thromboembolic events rate	3.59	4.00	0.712	19.851	88.235	11.8	Accept
9.	Surgical site infection rate	3.82	4.00	0.393	10.277	100	0	Accept
10.	Morbidity Rate at 30 Days	3.41	4.00	0.795	23.308	82.353	17.6	Accept
11.	Mortality rate at 30 days	3.41	4.00	0.795	23.308	82.353	17.6	Accept
12.	Number of unplanned re-operations	3.65	4.00	0.606	16.625	94.118	5.9	Accept
13.	Unplanned re-hospitalisation rate	3.65	4.00	0.702	19.245	88.235	11.8	Accept
14.	Number of hospital transfers	3.29	4.00	0.849	25.769	76.471	23.5	No consensus
15.	Number of same day admissions with a length of stay greater than 24 hours	3.35	4.00	0.862	25.702	76.471	23.5	No consensus
16.	Number of unplanned overnight admissions	3.47	4.00	0.624	17.987	94.118	5.9	Accept
17.	Patient experience in the ASC	3.35	3.00	0.786	23.439	94.118	5.9	Accept
18.	Incidence of patient burn	3.59	4.00	0.507	14.123	100	0	Accept
19.	Incidence of patient fall	3.65	4.00	0.493	13.507	100	0	Accept
20.	Incidence of injuries related to surgical positioning	3.71	4.00	0.470	12.674	100	0	Accept
21.	Incidence of wrong site surgery	3.82	4.00	0.393	10.277	100	0	Accept
22.	Incidence of wrong side surgery	3.82	4.00	0.393	10.277	100	0	Accept
23.	Incidence of wrong patient surgery	3.88	4.00	0.332	8.554	100	0	Accept
24.	Incidence of wrong procedure surgery	3.88	4.00	0.332	8.554	100	0	Accept
25.	Incidence of wrong implant surgery	3.88	4.00	0.332	8.554	100	0	Accept
26.	Urinary retention rate	3.12	3.00	0.697	22.345	82.353	0	Accept
27.	Number of postoperative emergency department visit within 30 days	3.06	3.00	0.827	27.034	70.588	29.4	No consensus
28.	Number of postoperative visits to primary care within 30 days	2.82	3.00	0.728	25.769	64.706	35.3	No consensus
29.	Number of postoperative visits to surgical speciality clinics within 30 days	3.24	3.00	0.752	23.257	82.353	17.6	Accept
30.	Staff satisfaction	3.53	4.00	0.624	17.687	94.118	5.9	Accept
31.	Patient's ability to resume normal activities following surgery (days)	3.06	3.00	0.827	27.034	70.588	29.4	No consensus
32.	Maintenance of normothermia	3.47	4.00	0.624	17.987	94.118	5.9	Accept
33.	Health-related quality of life	3.18	3.00	0.883	27.793	82.353	17.6	Accept

Prevention of TASS involves strict adherence to sterile techniques during surgery and proper cleaning and sterilization of surgical instruments, as well as the avoidance of contaminated solutions or equipment (25).

There was no consensus on this indicator in any of the Delphi rounds, as the statistical analysis of the results was similar in both rounds. Considering that TASS is a medical emergency requiring immediate attention from an ophthalmologist, and that over 90% of cataract surgeries are performed in ambulatory setting in the majority of

OECD countries and 96.7% in Portugal (26), the research team agreed that this indicator should be considered when evaluating the quality of AS.

In the reviewed literature, morbidity and mortality rates at 30 days after AS were mentioned by some authors as quality indicators for AS. However, others do not consider them useful for monitoring AS practice since they may not reflect the quality of care given in the perioperative period (27–29). Since these indicators are not in use in Portugal, we sought to understand expert's views on this

Table 4. Quantitative analysis from round 2.

		Mean	Median	Standard deviation	CV (%)	CVI (%)	Responses 1 or 2 (%)	Decision
<i>Structure Indicators</i>								
1.	Influenza vaccination compliance rate among healthcare personnel	2.50	3	0.964	38.5	54.545	45.5	No consensus
2.	Staff Skill mix	3.36	3	0.581	17.3	95.455	4.5	Accept
3.	Positive practice environments	3.59	4	0.503	14.0	95.455	0	Accept
<i>Process Indicators</i>								
1.	Number of preoperative delays and incidents	3.64	4	0.492	13.540	100	0	Accept
2.	Medication supply on discharge	3.59	4	0.796	22.177	90.909	9.1	Accept
3.	Moderate to maximum pain in patients undergoing AS	3.45	4	0.963	27.862	86.364	13.6	Accept
4.	Nursing preoperative consultation rate	3.86	4	0.351	9.091	100	0	Accept
5.	Surgical site hair removal	2.82	3	1.006	35.714	68.182	31.8	No consensus
<i>Result Indicators</i>								
1.	Postoperative complications rate – toxic anterior segment syndrome	3.14	3	0.774	24.688	77.273	22.7	No consensus
2.	Morbidity Rate at 30 Days	3.59	4	0.590	16.439	95.455	4.5	Accept
3.	Mortality rate at 30 days	3.36	4	0.902	26.820	81.818	18.2	Accept
4.	Number of hospital transfers	3.36	3.5	0.727	21.606	86.364	13.6	Accept
5.	Number of same day admissions with a length of stay greater than 24 hours	3.64	4	0.492	13.540	100	0	Accept
6.	Number of postoperative emergency department visit within 30 days	3.55	4	0.596	16.805	95.455	4.5	Accept
7.	Number of postoperative visits to primary care within 30 days	2.86	3	0.941	32.857	68.182	31.8	No consensus
8.	Patient's ability to resume normal activities following surgery (days)	3.36	3.5	0.790	23.473	90.909	4.5	Accept

topics, asking about their appropriateness of use in both rounds. In the first round both items were accepted and in the second round the statistical analysis revealed higher CVI a lower percentage of responder 1 and 2, revealing that Portuguese experts consider morbidity and mortality rates at 30 days after AS important quality indicators.

The item “Number of postoperative visits to primary care within 30 days” refers to unplanned visits to primary care due to unexpected circumstances. The expert panel considered that this indicator is redundant since the statistical analysis did not revealed consensus. This item intended to articulate with “Number of postoperative emergency department visit within 30 days”, reflecting the need for a patient to seek medical attention for an acute complication resulting from the outpatient surgical procedure.

The majority of times patients seek medical unplanned medical attention after AS are related to pain and wound complications. Some authors suggest that interventions such as calling patients after surgery, facilitating contact with the AS healthcare team and tailoring discharge instructions to all levels of health literacy may limit ED and primary care visits in the first month after outpatient surgery (30).

Since patient centeredness is one of the fundamental features of AS, patient experience should be included as a key quality indicator. This item reached consensus on the first round. Nonetheless, it is important to clarify some concepts. We propose the inclusion of

“patient experience” as an indicator instead of “patient satisfaction” as it is often seen in literature. Patient satisfaction refers to the patient’s perception of how well their expectations and needs were met during their encounter with a healthcare provider or facility. Patient experience is a broader concept that encompasses patient satisfaction but also includes other dimensions of care, reflecting the entire journey a patient goes through. Patient experience takes into account factors like communication, coordination of care, access to information, involvement in decision-making, and the overall feeling of being treated with respect and dignity (31).

In essence, patient satisfaction is a component of patient experience. A patient can be satisfied with a specific aspect of their care (e.g., a short waiting time) but still have an overall negative experience due to poor communication or lack of empathy.

ASC and healthcare professionals working in AS aim to improve both patient satisfaction and patient experience to ensure that patients not only receive quality surgical care but also feel valued, respected, and supported throughout their outpatient journey. By focusing on patients’ opinions, ASC staff is concerned with how healthcare meets their objective and subjective needs, and how it contributes to maintaining or improving their health status and quality of life (32).

It’s important to choose the right moments to obtain feedback to capture a comprehensive view of the patient’s experience. By evaluating patient satisfaction at various stages, healthcare providers

can identify areas for improvement, enhance patient communication, ensure a positive and satisfactory AS experience, and ultimately contribute to a better patient clinical outcome. As for the timing for performing this evaluation, authors recommend doing it at discharge and 30 days later (4,27).

Strengths and limitations

An important strength was the high response rates for both rounds 62,4% and 81,4%, revealing experts' commitment and interest in the study. Furthermore, by including experts who had clinical, teaching or policy-making experience, a broad scope of AS setting was reflected.

In the interpretation of the results, some limitations should be considered. First, only Portuguese experts were included in this study, which limits the generalization of the results. Second, patients were not included as experts because of the challenges regarding defining outcomes of care.

The risk of missing quality indicators was minimised by letting experts add and define missing indicators in the open answer sections of the questionnaire.

Conclusion

This study provides insight into AS quality indicators' appropriateness in the Portuguese reality. In total 56 indicators were considered suitable to evaluate the quality of AS in Portugal. The quality indicators in AS used in Portugal are coincident with the literature recommendations but they only reflect some aspects of the process of quality.

Ambulatory surgery is being performed with increasing frequency, but there are still few studies related to safety in this context. Patient safety, staff safety and safety occurrences tracking and management are of paramount importance for quality assessment in AS. Structural indicators are the foundation for a proper care delivery in this context, giving the specific features of AS. To have good outcomes, attention should be paid to the underlying process indicators. Therefore, measures must be established before carrying out AS to guarantee its safety and quality, as well as a monitoring and evaluation system.

CONFLICTS OF INTEREST: No external funding and no competing interests declared.

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