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MEASURING PATIENT SATISFACTION: Proposals for adaptations of existing instruments

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Summary

In September 2021, the ANQ commissioned Unsanté (ESOPE Group) to evaluate existing instruments used to measure patient satisfaction. The main objective of this process is to recommend the use of a revised ANQ survey outside the measurement period covered by the ANQ plan with the aim of reducing the use of different instruments for data collection. This document presents the process used to develop possible variants based on the adaptation of existing instruments for measuring patient satisfaction to satisfy the requirements of the ANQ and the Commission for Quality and Patient Satisfaction (AQ PatZu).

To achieve this objective, the ANQ and AQ PatZu identified a set of requirements that the adapted instrument must satisfy to be considered for future utilization. These requirements were identified as “content requirements” or “measurement requirements”. The content requirements included main and secondary themes, number of items, and PREM[1] prevalence. The measurement requirements included relevance, specificity, simplicity, differentiation, validation, and conditions for use.

Based on these two sets of requirements, a two-step procedure for identifying possible variants was implemented. In the first step, all the instruments retainded were evaluated considering the content requirements. Only instruments that satisfied all the requirements were analysed in step 2. During this step, selected instruments were evaluated considering the measurement requirements.

The instruments retained for analysis included the following:

a. The international instruments presented in a previous literature review [1];
b. Private companies’ instruments used in Swiss hospitals in the domain of acute somatic care: Picker, MECON.
c. Instruments developed and used in Swiss hospitals in the domain of acute somatic care. These instruments include those used in five university hospitals and four to six ad hoc instruments used in regional hospitals.
d. Private companies’ instruments used in Swiss hospitals in the domains of rehabilitation and psychiatric care: Picker (rehabilitation version), MECON (rehabilitation version), Münsterlinger Patientenfragebogen (MüPF, adult psychiatry version).
e. Instruments developed and used in Swiss hospitals in the domains of rehabilitation and psychiatric care. These instruments include those used in five university hospitals and four ad hoc instruments used in two regional rehabilitation hospitals and two regional adult psychiatric hospitals.

In step 1, 25 instruments were included, of which 6 instruments were retained for analysis in Step 2. None of the instruments considered in Step 2 totally satisfied the requirements of the ANQ and AQ PatZu and were directly available for utilization. Therefore, all possible variations were described (6). The instruments presented included the following: Centre Hospitalier Universitaire Vaudois (CHUV); Hôpitaux Universitaires de Genève (HUG); Inselspital Bern; UniversitätsSpital Zürich; Münsterlinger Patientenfragebogen (MüPF); and the Canadian Patient Experiences Survey — Inpatient Care (CPES-IC).

[1] Patient Reported Experience Measures (PREMs) are questions designed to measure patient experience; they capture a patient's experience with care (i.e., whether the patient experienced certain processes of care and the quality of that experience). They differ from Patient Reported Outcome Measures (PROMs), which are questions designed to capture the impact of illness or care on health, well-being or quality of life from the patient's perspective.

1 Introduction

In September 2021, the ANQ commissioned Unisanté (ESOPE Group) to evaluate existing instruments for measuring patient satisfaction.

This request was based on the observation that the ANQ's short instrument (6 questions) requires adaptation to meet the changing needs of Swiss hospitals. The main objective of this evaluation is to propose the use of a more elaborate instrument featuring more questions that satisfies the requirements of Swiss hospitals in terms of the quality of the information it collects.

The long-term objective of this evaluation is to recommend the use of the revised ANQ survey outside the measurement periods covered by the ANQ plan with the aim of reducing the use of different instruments for data collection.

The ANQ has defined a procedure for identifying possible instrument variants, which includes two mandates:

- 1st mandate: the development of two to three possible variants based on the adaptation of existing instruments measuring patient satisfaction.
- 2nd mandate: the realization/implementation of the variant chosen by the ANQ.

This document presents the results regarding the first mandate and accomplishes the following tasks:

a. Recall the requirements that the chosen instrument must satisfy according to the ANQ and the Commission for Quality and Patient Satisfaction (AQ PatZu) and presents the scope of the first mandate (Chapter 2).
b. Describe the procedure used to fulfil the first mandate (Chapter 3).
c. Present the results of the selection procedure (Chapter 4) and describing the selected variants (Chapter 5) in terms of requirements and goals.

2 Requirements and goals

According to the requirements of the ANQ and QA PatZu, the development of a revised survey must be based on the adaptation of an existing instrument that measures patient satisfaction.

Regarding the content of the instrument to be retained, the following themes must be included (main themes):

- Admission/entry procedure (Admission).
- Information/communication with nurses, medical staff and other health personnel (Information).
- Involvement in decision-making (Involvement).
- Organization, process, waiting time (Organization).
- Discharge management, interfacing, aftercare (Discharge).

The following themes are secondary but should ideally be included:

- Confidence/safety in treatment/care/stay/environment (Confidence).
- Medication: usefulness of the information provided, information regarding adverse effects, pain management (Medication).

In addition, the selected instrument should satisfy the following conditions (secondary themes):

- Prefer PREMs.
- Include between 30 and 40 questions.
- Facilitate free commentary.
- Offer both an online and a paper version of the survey.

We have identified these points as "content requirements" since they relate directly to the content of the questions included in an instrument.

Regarding the results and purpose of the measure, it must accomplish the following tasks:

- Make an essential contribution to quality development in hospitals (*Relevance*).
- Provide hospitals with a differentiated way of monitoring the patient's perspective over the long term (*Specificity*).
- Enable the presentation of the results in a form that is transparent and useful for patients (*Simplicity*).
- Provide ANQ partners (payers) with information regarding patients' perspectives on the different institutions (*Differentiation*).

We have identified these points as "measurement requirements" since they pertain to the quality of the information made available to hospitals through the measurement of patient satisfaction.

To identify the variants in th emost effective and trasparent way, we propose a procedure that facilitates a clear and transparent selection of instruments based on these requirements.

Once the instruments that meet both the content and measurement requirements are identified, the assessment should also address their conditions of use and modification (e.g., the existence of a licence and the associated costs, the existence of versions of the instrument in one or more national languages, the existence of a validation procedure).

On this basis, we propose several variants derived from the adaptation of the existing instruments identified in the previous steps, including in each case a detailed description of the envisaged adaptation procedure as well as the positive and negative aspects of each variant. It is important to note that the same instrument should be proposed for different domains of care (alongside the possibility of specific minor adaptations).

3 Instruments' sample and procedure

This chapter presents the procedure used to fulfil the first mandate and addresses the following points:

- A list of the instruments included in the analysis and
- A detailed description of the procedure used to identify instruments that satisfy the requirements of ANQ and QA PatZu.

3.1 Instruments considered

The offer accepted on 23 March 2022 defined the objectives of the analyses, which include consideration of the following instruments:

a. The international instruments presented in a previous literature review [1];
b. Private companies' instruments used in Swiss hospitals in the domain of acute somatic care: Picker, and MECON.
c. Instruments developed and used in Swiss hospitals in the domain of acute somatic care. These instruments include those used in five university hospitals and four to six ad hoc instruments used in regional hospitals.
d. Private companies' instruments used in Swiss hospitals in the domains of rehabilitation and psychiatric care: Picker (rehabilitation version), MECON (rehabilitation version), Münsterlinger Patientenfragebogen (MüPF, adult psychiatry version).
e. Instruments developed and used in Swiss hospitals in the domains of rehabilitation and psychiatric care. These instruments are used in five university hospitals and four ad hoc instruments used in two regional rehabilitation hospitals and two regional adult psychiatric hospitals.

Based on these considerations, the ANQ proposed a list of Swiss hospitals to be contacted by ESOPE. Section 4.1.1 presents this list as well as the area(s) of care covered in each case and the results of the survey regarding the use of patient satisfaction measurement instruments other than the ANQ survey.

3.2 Detailed procedure

Considering the requirements presented in Section 2, we have defined a two-step procedure for the selection of instruments and the identification of variants:

1. Step 1: Each instrument was evaluated with regard to its content (e.g., number of questions, topics assessed, use of PREMs);
2. Step 2: Each instrument selected in step 1 was evaluated with regard ti its measurement characteristics (e.g., relevance, specificity, simplicity, differentiation).

3.2.1 Step 1

To apply the content requirements described in Section 2 in a transparent way, we decided to "operationalize" them more effectively (i.e., to provide a clear and unambiguous description of each requirement). In this section, these requirements are defined in more specific terms, thus allowing them to be assessed in terms of the characteristics of the questions included in each instrument.

Requirement 1: Themes

To determine whether the themes that must be measured are indeed present, we classified each question included in the instrument under evaluation. In most cases, the process of classification was straightforward. For example, a question such as "During this hospital stay, how often did the nurses explain things to you in an understandable way?" clearly measures the theme "Information/communication". However, some questions were not clearly identifiable and could have been classified as measuring two or more different themes. In these cases, a decision was reached through consultation with the team. Table 1 lists the classification decisions made regarding these "hybrid" questions.

Table 1: Content of 'hybrid' questions and classification decisions

THEME	GENERAL CONTENT OF THE QUESTIONS
Admission	Information received regarding the hospitalization procedure / Information received regarding the patient's situation
Information	Good communication among caregivers / Caregivers are well informed regarding the patient's situation / Opportunity to discuss health status or treatment / Caregivers talk when the patient is not present
Involvement	None
Organization	Received help when needed / Time spent waiting before accessing the service / Organization of transfer from emergency care to the service/tests announced on time / Access to a caregiver to discuss anxiety / Caregiver had time for the patient / Insufficient number of caregivers to ensure good treatment / Excessively many caregivers involved
Discharge	Information regarding ways of managing anxiety after discharge from hospital / Explanation of medication to take after discharge from hospital
Confidence/ environment	Cleanliness / Noisiness / Meals
Medication	None
Other	Treated with respect and courtesy (dignity) / Destination after discharge / Improved understanding of health status after hospital stay / Quality of relationships among caregivers / Consideration of patients' feelings by caregivers

In addition, themes that were very specific to one instrument (e.g., limitations on the freedom of movement, the evaluation of leisure programmes) were not included in the analysis. The content of these themes was reported as additional information.

Requirements 2 and 3: Number of items and preference for PREMs

In accordance with the requirements of the ANQ and QA PatZu, the selected instruments should contain between 30 and 40 questions and favour PREMs. As in the previous case, questions measuring themes that are very specific to certain instruments (e.g., limitations on the freedom of movement) were not included in the evaluation.

Additional considerations regarding the content of the instruments

We did not consider sociodemographic questions in the evaluation of the instruments: these questions were not included in the requirements, and in some cases, they were not collected via the survey but rather by reference to patient records.

The presence of an open-ended question (i.e., a question in response to which the participant can give his or her opinion using free text) or the possibility of completing the survey online or on paper were also not considered to be requirements in this context. In fact, the addition of an open-ended question is always possible, as is the adaptation of an instrument to be either online or on paper.

We included in the analysis of the instruments the presence of questions regarding overall satisfaction (e.g., "How satisfied were you with your stay?") and recommendation (e.g., "Would you recommend this hospital to your family?"). Although the presence of such questions was not identified as a requirement, we considered it important to report them, as they could be used to assess the validity of the instrument [2].

In step 1, the existence of a French, Italian and/or German version of the instrument was also reported. Although this aspect did not represent a requirement, the translation of an instrument from a language not spoken in Switzerland and from a different culture could be an indication of a more demanding adaptation procedure.

Procedure step 1

First, relevant information regarding the instruments was collected through our contacts with Swiss hospitals as well as the institutions responsible for the use of such instruments. To obtain access to instruments that are not usually free to access, ESOPE's group of Unisante proposed an informal confidentiality agreement stipulating that the instrument's specific content would not be presented. In these instances, in cases in which the ANQ and QA PatZu chose the instrument, special permission granting access to the instrument's content should be given to ANQ by the instrument's owner.

We analysed each instrument by applying the content requirements. Sections 4.1.2, 4.1.3, and 4.1.4 present the results of this first step with respect to the specific instruments used in Swiss hospitals, the international instruments, and the private companies' instruments used by the contacted hospitals, respectively.

3.2.2 Step 2

As in Step 1, we describe in this section how the measurement requirements presented in Section 2 were applied to the instruments selected in step 1 to identify eligible variants. Section 4.2 presents the results of step 2 of the selection process.

Relevance

The relevance of the instrument is defined as the need for the aspects it measures to make an essential contribution to quality development in hospitals. Namely, in cases of high relevance, the answers to the questions provide hospitals with clear and direct information regarding "modifiable aspects" of the patient experience that is as objective as possible. For example, a question asking patients "Were the carers nice to you?" is less relevant than the question "How often did the carers answer your questions politely?

We identified an instrument as meeting this requirement if 80% or more of the questions included in the instrument were identified as relevant. In the case of instruments that partially met this requirement, only between 79% and 50% of the questions were identified as relevant. An instrument did not meet this requirement if less than 50% of its questions were identified as relevant.

Specificity

The specificity of an instrument is defined as the need for the instrument to facilitate differentiated monitoring of patient experience over time by hospitals. Namely, in cases of high specificity, the answers to the questions provide hospitals with information regarding each aspect of the patient experience that is as specific as possible. For example, the question "How often did you receive clear answers to your questions from doctors and nurses?" is less specific than the two separate questions "How often did you receive clear answers to your questions from doctors?" and "How often did you receive clear answers to your questions from nurses?" In addition, we considered global evaluation questions such as "How well organized was your admission?" to be nonspecific: the term "admission" is far too broad to provide hospitals with insight into what went wrong in the procedure in cases of negative evaluations.

We identified an instrument as fulfilling this requirement if all relevant themes (i.e., primary and secondary themes) were measured using a minimum of two different questions, each of which examined a specific aspect of the patient experience. An instrument partially met this requirement if the measurement of the primary themes met this requirement but not that of the secondary themes. An instrument did not meet this requirement if the measurement of one or more main themes did not meet this requirement.

Simplicity

The simplicity of an instrument is defined as the need for the instrument to facilitate the presentation of its results in a form that is transparent and useful to patients. Namely, in cases of high simplicity, the questions are designed to facilitate the clear and understandable reporting of results to the public. Some instruments include "screening questions," that is, questions that are posed only to certain patients based on their "profile." An example of screening question might be: "During this hospital stay, were you given a medication that you had not taken before? If the patient's answer to this question is "Yes," additional questions about the medication are offered. If the patient's answer is "No," these optional questions are not presented. One approach taken by some instruments is not to use screening questions but rather to give participants the option of responding that a certain situation is not applicable to them by asnwering (for exemple): "I have not taken any new medications." We considered important to identify screening questions and optional questions, as these latter can add complexity to the presentation of the results. Questions that are answered by all participants, regardless of their profile, are identified as "core" questions. The presentation of the results obtained throught instruments featuring many "optional" questions are less straightforward to present than the results obtained throught instruments that include only "core" questions.

We identified an instrument as meeting this requirement if all main themes were composed exclusively of "main questions" (i.e., no screening questions were included in the survey). An instrument partially met this requirement if less than 50% of the main themes included optional questions. An instrument did not meet this requirement if more than 51% of the main themes included one or more optional questions.

Differentiation

The differentiation of an instrument is defined as the need for the instrument to provide ANQ's partners (e.g., payers) with information regarding the patient's view of different hospitals. Namely, in cases of high differentiation, the questions are designed to facilitate differentiation among hospitals in terms of the degree of patient satisfaction, not only from an overall perspective (e.g., "bad" vs. "good" in general) but also regarding different aspects of the patient experience (i.e., main themes).

We examined outcome reports (when such reports were publicly available) to assess variability in hospital ratings. We identified an instrument as meeting this requirement if the results clearly differed across hospitals (i.e., if a simple glance at the relevant results indicated some variability in patient responses across hospitals). An instrument was identified as partially meting this requirement if this variability was not clearly

visible or if the results were presented only in terms of overall patient satisfaction (e.g., an overall satisfaction question or a composite satisfaction index). An instrument did not meet the requirement if no differentiation was observed regarding specific themes or the overall assessment of patient satisfaction. It is important to note that some of the instruments considered in step 2 are used for internal purposes only (i.e., the results are not publicly available). In this case, we defined the instrument as partially meeting the requirement, if hospitals need instruments that differentiate among the various areas of care.

General considerations

In addition to the measurement requirements, the following aspects were also evaluated:

- **Validation**: The instrument has been validated in accordance with scientific standards, and a publication is available.
- **Conditions for use**: This requirement includes the presence of a copyright or other conditions of use as well as possible royalties and the possibility of modifying (or not modifying) the original version of the instrument.

Procedure Step 2

We analysed each instrument by applying the measurement requirements. Section 4.2 presents the results of this second step for each instrument selected in step 1.

4 Results

4.1 Step 1

In this step, the available patient satisfaction measurement instruments were analysed based on the content requirements. The presentation of the results is organized into three sections: 1) instruments used by Swiss hospitals (excluding instruments proposed by private companies); 2) international instruments highlighted in the literature review [1]; and 3) instruments proposed by private companies and used by Swiss hospitals (corporate).

4.1.1 Swiss hospitals: Institutions contacted, and types of instruments used

Table 2 lists the Swiss hospitals contacted, the domain(s) of care covered by the institution, and the use of instruments other than the ANQ survey to measure patient satisfaction, and it indicates whether the instrument is accessible for evaluation. It is important to note that the instruments listed in the table as being proposed by private copmanies are evaluated in a specific section (4.1.4).

Table 2: Patient satisfaction instruments in the Swiss context - List of institutions contacted and instruments used

Hospitals	Domain(s) of care[a]			Other instruments than the ANQ	Available for evaluation
	A	R	P		
Centre hospitalier universitaire vaudois (CHUV)				1. Institution-specific	1. Yes
Hôpitaux Universitaires de Genève (HUG)				1. Picker	1. Yes (Corporate)
Inselspital Bern				1. Picker	1. Yes (Corporate)
Spital Schwyz, Schwyz				1. QM RIEDO 2. Institution-specific	1. Yes (Corporate) 2. Yes, but not relevant*
Hôpital du Jura				1. Institution-specific	1. Yes
Luzerner Kantonsspital (LUKS)				1. QM RIEDO 2. Institution-specific	1. Yes (Corporate) 2. Yes, but not relevant*
Universitätsspital Basel				1. Institution-specific	1. Yes
UniversitätsSpital Zürich				1. Institution-specific	1. Yes
Ente Ospedaliero cantonale				1. Institution-specific	1. Yes, but not relevant*
Kantonsspital Graubünden				1. Institution-specific	1. Yes
Centre hospitalier du Valais romand (CHVR)				1. Institution-specific	1. Yes
Centre hospitalier du Haut-Valais (SZO)				1. Institution-specific	1. Yes
Hirslanden Gruppe				1. Press Ganey	1. No (Corporate)
Reha Rheinfelden, Rheinfelden				1. MECON	1. Yes (Corporate)
Ente ospedaliero Riabilitazione				1. MECON 2. Institution-specific	1. Yes (Corporate) 2. Yes, but not relevant*

* The instrument consists of a few questions and/or very general questions.

[a] A = Acute care, R = Rehabilitation, P = Psychiatric care

Table 2 (continued): Patient satisfaction instruments in the Swiss context - List of institutions contacted and instruments used

Institutions	Domain(s) of care[a]			Other instruments than the ANQ	Available for evaluation
	A	R	P		
Kliniken Valens				1. MECON 2. Institution-specific	1. Yes (Corporate) 2. Yes, but not relevant*
Rehaklinik Bellikon				1. None	
Clinique Le Noirmont				1. Institution-specific	1. Yes
Privatklinik Oberwaid AG				1. Institution-specific	1. Yes
Universitäre Psychiatrische Kliniken UPK - Basel				1. MüPF	1. Yes
Centre Neuchâtelois de psychiatrie				1. None	
Universitäre Psychiatrische Dienste UPD - Bern				1. MüPF (+ own questions)	1. Yes
Psychiatrische Universitätsklinik PUK - Zürich				1. No answer so far	
Clienia Privatkliniken				1. Mix between MüPF, ZüPAZ and ANQ	1. No
Spital Thurgau AG, Psychiatrische Dienste Thurgau				1. MüPF	1. Yes
Luzerner Psychiatrie (Lups)				1. None	

* The instrument is composed by few and/or very general questions.

[a] A = Acute care, R = Rehabilitation, P = Psychiatric care.

4.1.2 Selection of instruments Swiss hospitals: Selection of instruments

Table 3 presents the results of the assessment of these instruments considering the content requirements presented in Section 3.2.1. Green boxes indicate that the requirement is fulfilled (e.g., a theme is measured), whereas red boxes indicate that the requirement is not fulfilled. White boxes indicate information that is interesting to note but not essential for the inclusion of the instrument in step 2. At the bottom of the table, the label "Meets content requirements" indicates whether the instrument meets all content requirements.

Table 3: Evaluation of patient satisfaction measurement instruments used by Swiss hospitals in accordance with the content requirements

Requirements		Swiss Hospitals							
		CHUV	HUG	Universitätsspital BS	UniversitätsSpital ZH	Inselspital BE	Hôpital du Jura	SZO	CHVR
Development of the instrument		Institution-specific	Picker Inst.	Institution-specific	Institution-specific	Picker Inst.	Institution-specific	Institution-specific	Institution-specific
Domain(s) of care[a]		A, R	A, R	A, R	A	A, R	A, R	A	A, R
Number of questions[b]		23	26	29	38	19	4	12	50
Main themes (n items)	Admission	Yes	No	No	Yes	No	No	Yes	Yes
	Information	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
	Involvement	Yes	Yes	Yes	Yes	Yes	No	No	Yes
	Organization	Yes	Yes	Yes	Yes	Yes	No	No	Yes
	Discharge	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Sec. them	Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medication	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Overall satisfaction		No	Yes	Yes	Yes	No	Yes	Yes	Yes
Recommandations		Yes	Yes	No	No	Yes	Yes	No	No
Language(s)		Fr	Fr, De, En, Es	De	De	Fr, De, It	Fr	Fr, De	De, Fr
Meets content requirements		Yes	No	No	Yes	No	No	No	No

[a] Domain(s) of care in whic4 instruments are used to measure patient satisfaction (A = Acute care, R = Rehabilitation, P = Psychiatric care).

[b] Sociodemographic questions, as well as questions on hospital-specific topics, were not included in the analysis. In some cases, the six ANQ questions were also included in the instrument. These questions were not included in the analysis either.

Table 3 (continued): Evaluation of patient satisfaction measurement instruments used by Swiss hospitals in accordance with the content requirements

Requirements		Swiss Hospitals						
		Kantonsspital GR	Kliniken Valens	Clinique Le Noirmont	Privatklinik Oberwaid	Universitäre Psychiatrische Kliniken UPK - BS	Universitäre Psychiatrische Dienste UPD - BE	Spital TG Psychiatrische Dienste
Development of the instrument		Institution-specific	Institution-specific	Institution-specific	Institution-specific	MüPF	MüPF + own Qs	MüPF
Domain(s) of care[a]		A	R	R	R	P	P	P
Number of questions[b]		13	9	21	21	29	29	29
Main Themes (n items)	Admission	Yes	No	Yes	Yes	Yes	Yes	Yes
	Information	Yes	Yes	Yes	No	Yes	Yes	Yes
	Involvement	No	Yes	No	No	Yes	Yes	Yes
	Organization	No	No	No	Yes	Yes	Yes	Yes
	Discharge	Yes	No	Yes	Yes	Yes	Yes	Yes
Sec. Themes	Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medication	Yes	No	No	No	Yes	Yes	Yes
Overall satisfaction		No	No	No	Yes	Yes	Yes	Yes
Recommandations		No	Yes	Yes	No	Yes	Yes	Yes
Language(s)		De	De	De, Fr	De	De	De	De
Meets content requirements		No	No	No	No	Yes	Yes	Yes

[a] Domain(s) of care in which instruments are used to measure patient satisfaction (A = Acute care, R = Rehabilitation, P = Psychiatric care).

[b] Sociodemographic questions, as well as questions on hospital-specific topics, were not included in the analysis. In some cases, the six ANQ questions were also included in the instrument. These questions were not included in the analysis either.

Table 3 shows that three instruments met the content requirements: CHUV, UniversitätSpital Zürich and MüPF. Although the instruments used by the HUG and the Inselspital Bern do not meet the content requirements, they are proposed for inclusion in step 2 for the following reasons:

- They are defined in collaboration with the Picker Institute, and it is therefore possible to include questions regarding admission (the main missing theme) that are chosen from a validated list of questions [1]. As a result, these instruments could meet the content requirements.
- They are used by two major Swiss hospitals.
- The access to the original Picker instrument for evaluation was not possible (see Section 4.1.3), and these instruments must be analysed instead.

Although the instrument used by UniversitätsSpital Basel exhibits similar results to these two last instruments (i.e., HUG and Inselspital Bern), it did not present the same characteristics that justify its inclusion in step 2.

In conclusion, five instruments are considered in step 2: CHUV, HUG, Inselspital Bern, UniversitätsSpital Zürich, and the MüPF.

4.1.3 Selection of international instruments

The instruments presented in this section were included through a previous literature review [1] and are used in the domain of acute care. Table 4 presents the results of the assessment of these instruments considering the content requirements presented in Section 3.2.1. Green boxes indicate that the requirement is fulfilled (e.g., a theme is measured), whereas red boxes indicate that the requirement is not fulfilled. White boxes indicate information that is interesting to note but not essential for the inclusion of the instrument in step 2. At the bottom of the table, the label "Meets content requirements" indicates whether the instrument meets all content requirements.

Table 4: Evaluation of international patient satisfaction measurement instruments in accordance with the content requirements

Requirements		National context							
		Great-Britain	United States of America	France	Germany	New Zealand	Canada	Denmark	Netherlands
Instrument		NHS Inpatient Survey	HCAHPS	e-Satis (+48h MCO)	PEQ	Adult Inpatient Experience Survey	CPES-IC	LUP Somatic, long version (old)	PREM MSZ
Number of questions[a]		49	23	57	15	33	36	39	8
Main Themes (n items)	Admission	Yes	No	Yes	Yes	No	Yes	Yes	No
	Information	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Involvement	No	No	Yes	Yes	Yes	Yes	Yes	Yes
	Organization	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Discharge	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Sec. The	Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Medication	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Overall satisfaction		Yes	Yes	Yes	No	Yes	Yes	Yes	No
Recommendation		No	Yes	Yes	Yes	No	Yes	No	Yes
Language(s)		Fr, En	En, De	Fr	De	En	En, Fr	Da	Nl
Meets content requirements		No	No	No	No	No	Yes	Yes	No

[a] Sociodemographic questions were not included in the analysis.

Table 4 shows that two international instruments met the content requirements: the CPES-IC (Canada) and the LUP Somatic (Denmark). In the latter case, we analysed the old version of the instrument; however, a new version will replace it beginning in 2023. The new version was not considered for the analyses, as important information pertaining to its evaluation is currently missing (e.g., the measures used to assess the quality of the collected data are currently unavailable). Since the version that has been evaluated in this report will no longer be used either in its entirety or in part, we decided not to include this instrument in step 2. A description of the new version of the instrument is presented in Section 7 (Additional information).

The CPES-IC will also undergo changes in the future, but these changes are less significant than those associated with the LUP. These changes relate to updating the wording of some questions and to offering the possibility for hospitals to use either a short version of the survey or its full version. In this case, the main content of the instrument will not be changed. Therefore, this instrument has been included in step 2, and further information on the planned changes is presented in Section 7.

4.1.4 Selection of corporate instruments

The instruments presented in this section were drawn from contacts with Swiss hospitals. Three instruments cited were linked to a private company specializing in the measurement of patient satisfaction: Picker Institute, MECON, and QM Riedo. The Press Ganey instrument was not selected, as its use is very limited (only one hospital). Of these three instruments, only the final two could be analysed, as the Picker instrument was unavailable at the time of the evaluation[2]. Table 5 presents the results of the evaluation of the instruments considering the content requirements (see Section 3.2.1)

Table 5: Evaluation of International Instruments measuring patients' satisfaction in accordance with the content requirements

Requirements		Institute	
		MECON	QM Riedo
Instrument's Version[a]		Standard, complete version	Standard
Number of questions[b]		50	58
Main Ttemes (n items)	Admission	Yes	Yes
	Information	Yes	Yes
	Involvement	No	Yes
	Organization	Yes	Yes
	Discharge	Yes	Yes
Sec. Ttem	Security	Yes	Yes
	Medication	Yes	Yes
Overall satisfaction		Yes	Yes
Recommandation		Yes	Yes
Langage(s)		Fr, De, It	Fr, De, It
Meets content requirements		No	No

[a] An adjusted version of the instrument can be used to measure patient satisfaction in different domains of care. However, only the version proposed by the company concerned was analysed.

[b] Sociodemographic questions were not included in the analysis.

Table 5 shows that none of the instruments proposed by private companies meet the content requirements considered in step 1.

4.2 Step 2

In step 2, the instruments that met the content requirements were analysed considering the measurement requirements. First, we present a detailed description of the content of each instrument and subsequently assess the instruments against the backdrop of the measurement requirements presented in Section 3.2.2.

In this step, questions were identified as either "core questions" (i.e., questions that are asked of all participants), or "optional questions" (i.e., questions that are asked only of participants who answered "yes" to a previous screening question). For example, in the first case, all patients answer a question regarding new medication (with the option of answering "I have not received a new medicine"), whereas in the second case, only participants who answer "yes" to the screening question "Have you received a new medication?" are subsequently asked a question regarding that medication. The number of screening questions was also identified (i.e., questions that do not provide any relevant information regarding the patient's experience and are used only to determine whether optional questions should be answered).

To simplify the presentation, we use the following symbols to represent the assessment of each aspect: ☒ = not fulfilled; ☑ = fulfilled; ➢ = **partially fulfilled;** **? = not possible to assess.**

Note: The instruments selected exhibit two types of measurement methodologies. In one case (called Frequency), the questions focus on the frequency with which a positive or negative event occurred (e.g., "How often did you receive understandable answers to your questions?"). In the other case (called Evaluation), a more evaluative methodology is used (e.g., "Did you receive understandable answers to your questions?"). The information collected using these two approaches is not identical, but neither method can be considered as superior to the other. In both cases, patients must define the object being evaluated (e.g., the notion of understandability). However, we have decided to indicate the main methodological choice of each instrument as additional information.

4.2.1 CHUV

The CHUV instrument mainly employs the "Frequency" method. Table 6 presents a detailed description of its content.

Table 6: Detailed description of the CHUV instrument

Information		CHUV	
Development of the instrument		Institution-specific	
Domain of use[a]		A, R	
Type of questions		Core	Optional
Number of questions[b]		23	0
Number of PROMs		0	0
N of screening questions		0	0
Number of items	Admission	1	0
	Information	8	0
	Involvement	1	0
	Organization	2	0
	Discharge	4	0
Sec. Them	Security	2	0
	Medication	2	0
	Other	Dignity (1)	None
Overall satisfaction		1	0
Recommendation		1	0
Language(s)		Fr	
Commentary questions		Mostly appreciated ; Room for improvement ; General comments	
Additional themes (not evaluated)		None	

[a] Domain(s) of care in which the instrument is used, with or without minor adaptations (A = Acute, R = Rehabilitation, P = Psychiatric).

[b] Sociodemographic questions were not included in the analysis.

Assessment of measurement requirements:

- ☑ Relevance: One question measuring a main theme (N = 16; 6.3%) does not meet this requirement (i.e., Involvement).
- ☒ Specificity: The main theme "Admission" is measured using only a global question. Although the theme "Involvement" is measured using a single question, it is considered as specific.
- ☑ Simplicity: The participants are asked all questions, and patients are allowed to indicate if a situation is not applicable to them.
- **?** Differentiation: This instrument is used for internal use only; accordingly, no comparison with other hospitals is possible.
- ➢ Validation: The instrument has been validated internally, but no corresponding publication exists.
- **?** Conditions for use and modification: The instrument is the property of the CHUV. No formal procedure for its use exists, and a special request must be submitted to the institution for a decision.

Conclusion: The instrument partially met the requirements.

4.2.2 HUG

The HUG instrument mainly employs the "Frequency" method. Table 7 presents a detailed description of its content.

Table 7: Detailed description of the HUG instrument

Information		HUG	
Development of the instrument		Collaboration with Picker Institute	
Domain of use[a]		A, R, P	
Type of questions		Core	Optional
Number of questions[b]		24	2
Number of PROMs		1	0
N of screening questions		1	0
Number of items	Admission	0	0
	Information	8	0
	Involvement	1	0
	Organization	1	0
	Discharge	4	1
Sec. Them	Security	5	0
	Medication	0	1
	Other	Dignity (1)	0
Overall satisfaction		1	0
Recommendation		1	0
Language(s)		Fr	
Commentary questions		General comments	
Additional themes (not evaluated)		Hospitality; Health care partnership	

[a] Domain(s) of care in which the instrument is used, with or without minor adaptations (A = Acute, R = Rehabilitation, P = Psychiatric).

[b] Sociodemographic questions were not included in the analysis.

Assessment of measurement requirements:

- ☑ Relevance: One question measuring a main theme (N = 15; 6.7%) does not meet this requirement (i.e., Involvement).
- ➢ Specificity: The main theme "Admission" is not measured. However, validated questions on this theme can be included [3]. The main themes "Involvement" and "Organization" are each associated with only one question, but these questions collect specific information regarding the patient experience.
- ☑ Simplicity: No main theme is measured only by optional questions, and the instrument includes only one screening question. In addition, patients are allowed to indicate that the situation in not applicable to them.
- ☑ Differentiation: Published articles indicate that the instruments developed by the private company Picker differentiate among hospitals in a satisfactory manner [3].
- ☑ Validation: Corresponding publications are available [3, 4, 5, 6].
- ➢ Condition for use: The instrument is subject to copyright and additional fees. In addition, the Picker Institute, which holds the copyright, must be involved in the modification process.

Conclusion: The instrument partially met the requirements.

4.2.3 Inselspital Bern

The Inselspital Bern instrument mainly employs the "Frequency" method. Table 7 presents a detailed description of the content of the instrument.

Table 8: Detailed description of the Inselspital Bern instrument

Information		Inselspital Bern	
Development of the instrument		Collaboration with Picker Institute	
Domain of use[a]		A, R, P	
Type of questions		Core	Optional
Number of questions[b]		17	2
Number of PROMs		0	0
N of screening questions		1	0
Number of items	Admission	0	0
	Information	7	0
	Involvement	1	0
	Organization	1	0
	Discharge	2	1
Sec. them	Security	3	0
	Medication	0	1
	Other	Dignity (1)	0
Overall satisfaction		0	0
Recommendation		1	0
Language(s)		Fr	
Commentary questions		General comments	
Additional themes (not evaluated)		Additional services' offer (2)	

[a] Domain(s) of care in which the instrument is used, with or without minor adaptations (A = Acute, R = Rehabilitation, P = Psychiatric).

[b] Sociodemographic questions were not included in the analysis.

Assessment of measurement requirements:

- ☑ Relevance: One question measuring a main theme (N = 15; 6.7%) does not meet this requirement (i.e., Involvement).
- ➢ Specificity: The main theme "Admission" is not measured. However, validated questions on this theme can be included [3]. The main themes "Involvement" and "Organization" are each associated with only one question, but these questions collect specific information regarding the patient experience.
- ☑ Simplicity: No main theme is measured only by optional questions, and the instrument includes only one screening question. In addition, patients are allowed to indicate that the situation in not applicable to them.
- ☑ Differentiation: Published articles indicate that the instruments developed by the private company Picker differentiate among hospitals in a satisfactory manner [3].
- ☑ Validation: Corresponding publications are available [3, 4, 5, 6].
- ➢ Condition for use: The instrument is subject to copyright and additional fees. In addition, the Picker Institute, which holds the copyright, must be involved in the modification process.

Conclusion: The instrument partially met the requirements.

4.2.4 UniversitätsSpital Zürich

The UniversitätsSpital Zürich instrument mainly employs the "Evaluation" method. Table 9 presents a detailed description of the content of the instrument.

Table 9: Detailed description of the UniversitätsSpital Zürich instrument

Information		UniversitätsSpital Zürich	
Development of the instrument		Institution-specific	
Domain of use[a]		A	
Type of questions		Core	Optional
Number of questions[b]		38	0
Number of PROMs		3	0
N of screening questions		0	0
Number of items	Admission	1	0
	Information	7	0
	Involvement	2	0
	Organization	10	0
	999Discharge	2	0
Sec. Them	Security	6	0
	Medication	1	0
	Other	Dignity (3); Quality of caregivers' relationship (2)	None
Overall satisfaction		1	0
Recommendation		0	0
Language(s)		De	
Commentary questions		General comments	
Additional themes (not evaluated)		Evaluation of oncology services (9)	

[a] Domain(s) of care in which the instrument is used, with or without minor adaptations (A = Acute, R = Rehabilitation, P = Psychiatric).

[b] Sociodemographic questions were not included in the analysis.

Assessment of measurement requirements:

- ➢ Relevance: Seven of the questions used to measure a main theme (N = 22; 31.8%) does not allow the hospital to identify specific actions that can be taken to improve patient satisfaction. For example, a negative rating on the question "The attending physician seemed distant and impersonal" offers only vague information regarding the physician's behaviour. It is indeed very complicated to implement measures intended to make doctors seem more "close and personal".
- ☒ Specificity: The main theme "Admission" is measured using only a global question.
- ☑ Simplicity: No main theme is measured using only optional questions. However, in some cases patients are not offered the opportunity to respond that a situation is not applicable to them.
- **?** Differentiation: The instrument is intended only for internal use, and no comparison with other hospitals is possible.
- ➢ Validation: The questions included are drawn from three validated instruments (PEQ - Patients' Experience Questionnaire; HFK - Hamburger Fragebogen zum Krankenhausaufenthalt; KPF - Kölner Patienten Fragebogen). However, the validity of the final instrument has not yet been assessed at the time of writing.
- **?** Conditions for use and modification: This instrument is the property of the UniversitätsSpital Zürich. No formal procedure for use exists, and a special request must be submitted to the institution for a decision.

Conclusion: The instrument partially met the requirements.

4.2.5 MüPF

The MüPF instrument mainly employs the "evaluation" method. Table 10 presents a detailed description of the content of the instrument.

Table 10: Detailed description of the MüPF instrument

Information		MüPF	
Development of the instrument		MüPF benchmark group	
Domain of use[a]		P	
Type of questions		Core	Optional
Number of questions[b]		29	0
Number of PROMs		2	0
N of screening questions		0	0
Number of items	Admission	2	0
	Information	3	0
	Involvement	3	0
	Organization	2	0
	Discharge	2	0
Sec. Them	Security	6	0
	Medication	1	0
	Other	Dignity (1); Contact with other patients (1); Partnership with health caregivers (4)	0
Overall satisfaction		1	0
Recommendation		1	0
Language(s)		De	
Commentary questions		General comments	
Additional themes (not evaluated)		Limitation of liberty of movement (5); reference caregiver (4)	

[a] Domain(s) of care in which the instrument is used, with or without minor adaptations (A = Acute, R = Rehabilitation, P = Psychiatric).

[b] Sociodemographic questions were not included in the analysis.

Assessment of measurement requirements:

- ☑ Relevance: One question that measures a main theme (N = 12; 16.7%) does not meet this requirement.
- ☑ Specificity: No main theme is measured using a single global question.
- ☑ Simplicity: No main theme is measured using optional questions only. However, in some cases patients are not offered the opportunity to respond that a situation is not applicable to them.
- ☑ Differentiation: Available reports indicate different scores across hospitals [7] as well as departmental practices [8].
- ☑ Validation: The previous version of this instrument has been validated, and corresponding publications are available [9]. Validation of the slightly revised version is currently underway (personal communication).
- **?** Conditions for use and modification: This instrument is the property of the Benchmark Group. No formal procedure for use exists, and a special request must be submitted to the Group for a decision.

Conclusion: The instrument met the requirements, but it is necessary to confirm its availability.

4.2.6 CPES-IC

The CPES-IC instrument mainly employs the "Frequency" method. Table 11 presents a detailed description of the content of the instrument.

Table 11: Detailed description of the CPES-IC instrument

Information		CPES-IC	
Development of the instrument		Canadian Institute for Health Information (CIHI)	
Domain of use[a]		A, R, P	
Type of questions		Core	Optional
Number of questions[b]		30	9
Number of PROMs		1	0
N of screening questions		5	0
Number of items	Admission	2	2
	Information	7	0
	Involvement	2	0
	Organization	3	1
	Discharge	3	2
Sec. Them	Security	2	0
	Medication	0	4
	Other	Dignity (2)	None
Overall satisfaction		2	0
Recommendation		1	0
Language(s)		Fr, En	
Commentary questions		General comments	
Additional themes (not evaluated)			

[a] Domain(s) of care in which the instrument is used, with or without minor adaptations (A = Acute, R = Rehabilitation, P = Psychiatric).

[b] Sociodemographic questions were not included in the analysis.

Assessment of measurement requirements:

- ☑ Relevance: 100% of the questions included in the instrument meet this requirement.
- ☑ Specificity: No main theme is measured using a single global question.
- ☑ Simplicity: No main theme is measured using only optional questions.
- ☑ Differentiation: Available reports indicate different scores across hospitals [10].
- ☑ Validation: Corresponding publications are available [11].
- **?** Conditions for use and modification: The instrument is free to use and modify. However, a special request must be made to the Canadian Institute for Health Information and the Agency for Health Care Research and Quality (some questions are drawn from the HCAHPS, which is a registered trademark of the latter institution).

Conclusion: The instrument met the requirements, but it is necessary to confirm its availability.

5 Proposed variants

This section describes the adaptation's process of the evaluated instruments to produce an instrument meeting ANQ and PatZu QA requirements. Two instruments (MüPF and CPES-IC) stand out from the rest and clearly meet most of the criteria presented in this report. However, in this section, we have considered all the instruments selected at stage 2. In fact, the final decision must be taken by the ANQ and the PatZu QA, and this report is intended as a support to facilitate the decision-making process. Consequently, it is important to present the adaptation process for all the instruments selected in stage 2, as they will be subject to evaluation by PatZu QA.

In addition to listing the steps taken in the process of adaptation, we highlight the positive and negative aspects of each variant. The characteristics thus assessed include the following:

- Importance of the need to adapt the main content of the instrument.
- Existence of versions of the instrument in French, Italian and/or German (adapted to the Swiss linguistic context).
- The availability of scientific articles on the instrument that confirm its psychometric value.
- Importance of the need to adapt the instrument to different domains of care.
- Presence of a copyright.
- Adaptation of the instrument to the Swiss context.

To simplify the presentation, we use the following symbols to represent the assessment of each aspect:

☒ = not fulfilled; ☑ = fulfilled; ➢ = partially fulfilled; **? = not possible to assess.**

We also propose an estimate of the time required to complete each variant, although this estimate is only approximate. In addition, we name different groups that are implicated at different times. In this context, we offer a proposal for their constitution under "ideal conditions" (i.e., without considering the relevant practical obstacles):

- Expert Group 1 (first assessment of the instrument): At least three experts should be included in this group. One expert in each domain of care should be included, and the experts should speak the language in which the instrument is designed (e.g., French for the CHUV instrument or German for the MüPF).
- Expert Group 2 (assessment of the translation of the instrument): At least six experts should be included this group. One expert in each domain of care should be included, and each expert should speak a national language (e.g., one expert for the acute care domain who speaks French, one who speaks German, and one who speaks Italian).
- Patient Group 1 (first assessment of the instrument): At least six patients should be included this group. One patient of each gender (man and woman) should be included to assess each domain of care, and they should speak the language in which the instrument was designed (e.g., French for the CHUV instrument or German for the MüPF).
- Patient Group 2 (evaluation of the translation of the instrument): At least six patients should be included this group. One patient from each domain of care should be included, and each patient should speak a national language (e.g., one patient in the acute care domain who speaks French, one who speaks German, and one who speaks Italian).

Note: It is important to specify that only the ANQ and the QA PatZu have the right to decide on the variant under consideration, the exact procedure used, and the determination of the persons involved.

5.1 CHUV

The adaptation process:

1. Assessment of the need to add questions that measure the main theme "Admission" and to measure the theme "Involvement" in a more objective and comprehensive way.
2. Assessment of the need to modify the questions to fit the specificities of all care domains and definition of the adjustments needed (Expert Group 1: 3 months for steps 1 and 2).
3. Translation into German and Italian (back-and-forth translation, 1 month).
4. Evaluation of the translated versions (Expert Group 2 and Patient Group 2: 1 month).
5. Pretesting by reference to a limited patient population (patient sample) and possible adaptations (Patient Group ": 2 and a half months).
6. Pretesting by reference to a limited number of Swiss hospitals (4 and a half months).

Estimated time: 12 months.

Positive and negative aspects of the variant:

☒ The structure of the instrument requires some modifications: Three main themes must be completed/adapted.
➢ Only a French version of the instrument exists.
☒ At the time of writing, the instrument is used only for internal purposes, and no corresponding scientific paper is available.
➢ It is likely that some adaptation is necessary to make the instrument suitable for the domain of psychiatric care.
? The conditions of use have yet to be defined.
☑ This instrument is adapted to the Swiss context.

In summary, although the instrument exhibits some negative aspects, it can easily be improved.

5.2 HUG

The adaptation process:

1. Assessment of the need to add questions that measure the main theme “Admission” (Expert Group 1 and Picker Institute).
2. Assessment of the need to modify the questions to fit the specificities of all care domains and definition of the adjustments needed (Expert Group 1 and Picker Institute: 5 months for steps 1 and 2).
3. Translation of the created/added questions into national languages (back-and-forth translation, 1 month).
4. Evaluation of the translated versions (Expert Group 2, Patient Groups 2, and Picker Institute: 2 months).
5. Pretesting by reference to a limited patient population and possible adaptations (Patient Group 2: 2 and a half months).
6. Pretesting by reference to a limited number of Swiss hospitals (4 and a half months).

Estimated time: 15 months. Note: The Picker Institute must be included in the discussions, so the procedure is expected to be more complex.

Positive and negative aspects of the variant:

- ☒ The instrument’s structure requires some modifications: One main theme must be completed/adapted.
- ☑ French, Italian, and German versions of the instrument exist.
- ☑ The general instrument is used internationally as well as in the Swiss context, and its psychometric quality, especially in terms of its scientific utility, has been confirmed.
- ➢ It is likely that some adaptation is necessary to make the instrument suitable for the domain of psychiatric care.
- ☒ The instrument is subject to copyright, and additional costs are associated with its use. In addition, the modification process may take longer to reach completion, as the Picker Institute must be included in this process.
- ☑ This instrument is adapted to the Swiss context.

In summary, although the instrument exhibits some negative aspects, it can easily be improved.

5.3 Inselspital Bern

The adaptation process:

1. Evaluation of the need to add a measure of the main theme “Admission” (Expert Group 1 and Picker Institute).
2. Assessment of the need to modify the questions to fit the specificities of all care domains and definition of the adjustments needed (Expert Group 1 and Picker Institute: 5 months for steps 1 and 2).
3. Translation of the created/added questions into national languages (back-and-forth translation, 1 month).
4. Evaluation of the translated versions (Expert Group 2, Patient Groups 2, and Picker Institute: 2 months).
5. Pretesting by reference to a limited patient population and possible adaptations (Patient Group 2: 2 and a half months).
6. Pretesting by reference to a limited number of Swiss hospitals (4 and a half months).

Estimated time: 15 months. The Picker Institute must be included in the discussions, so the procedure is expected to be more complex.

Positive and negative aspects of the variant:

- ☒ The instrument’s structure requires some modifications: One main theme must be completed/adapted.
- ☑ French, Italian, and German versions of the instrument exist.
- ☑ The general instrument is used internationally as well as in the Swiss context, and its psychometric quality, especially in terms of its scientific utility, has been confirmed.
- ➢ It is likely that some adaptation is necessary to make the instrument suitable for the domain of psychiatric care.
- ☒ The instrument is subject to copyright, and additional costs are associated with its use. In addition, the modification process may take longer to reach completion, as the Picker Institute must be included in the process.
- ☑ This instrument is adapted to the Swiss context.

In summary, although the instrument exhibits some negative aspects, it can easily be improved.

5.4 UniversitätsSpital Zürich

The adaptation process:

1. Evaluation of the need to add a measure for the main theme “Admission” and the possibility of excluding questions judged to be irrelevant (Expert Group 1).
2. Assessment of the need to modify the questions to fit the specificities of all care domains and definition of the adjustments needed (Expert Group 1: 3 months for steps 1 and 2).
3. Translation into French and Italian (back-and-forth translation, 1 month).
4. Evaluation of the translated versions (Expert Group 2 and Patient Group: 1 month).
5. Pretesting by reference to a limited patient population and possible adaptations (Patient Group 2: 2 and a half months).
6. Pretesting by reference to a limited number of Swiss hospitals (4 and a half months).

Estimated time: 12 months.

Positive and negative aspects of the variant:

- ☒ The instrument’s structure requires some modifications: One main theme must be completed/adapted, and the possibility of excluding a certain number of questions must be evaluated.
- ➢ Only a German version of the instrument exists.
- ☒ At the time of writing, the instrument has been used only for internal purposes, and no corresponding scientific paper is available.
- ➢ It is likely that some adaptation is necessary to make the instrument suitable for the domain of psychiatric care.
- **?** The conditions of use have yet to be defined.
- ☑ This instrument is adapted to the Swiss context.

In summary, although the instrument exhibits some negative aspects, it can easily be improved.

5.5 MüPF

The adaptation process:

1. Assessment of the need to modify the questions to fit the specificities of all care domains and definition of the adjustments needed (Expert Group 1: 2 months).
2. Translation into French and Italian (back-and-forth translation, 1 month).
3. Evaluation of the translated versions (Expert Group 2 and Patient Group 2: 1 month).
4. Pretesting by reference to a limited patient population and possible adaptations (patient Group 2: 2 and a half months).
5. Pretesting by reference to a limited number of Swiss hospitals (4 and a half months).

Estimated time: 11 months.

Positive and negative aspects of the variant:

☑ The structure of the instrument does not require major changes.
➢ Only a German version of the instrument exists.
☑ The general instrument is used in the Swiss context, and its psychometric quality, especially in terms of scientific utility, has been confirmed. However, the instrument is not used internationally.
➢ It is likely that some adaptation is necessary to make the instrument suitable for the domain of psychiatric care.
? The conditions of use have yet to be defined.
☑ The instrument has been adapted to the Swiss context.

In summary, although the instrument exhibits some negative characteristics, it can easily be improved.

5.6 CPES-IC

The adaptation process:

1. Cultural evaluation of the English version (Expert Group 1 and Patient Group 1: 2 months).
2. Translation into German and Italian (back-and-forth translation, one month).
3. Evaluation of the translated versions (Expert Group 2 and Patient Group 2: 1 month).
4. Assessment of the need to modify the questions to fit the specificities of all care domains and definition of the adjustments needed (Expert Group 1: 2 months but parallel to point 1).
5. Pretesting by reference to a limited patient population and possible adaptations (Patient Group 2: 2 and a half months).
6. Pretesting by reference to a limited number of Swiss hospitals (4 and a half months).

Estimated time: 12 months.

Positive and negative aspects of the variant:

☑ The structure of the instrument does not require major changes.
☒ Only a French-Canadian version of the instrument exists.
➢ The general instrument is used internationally, and its psychometric quality, especially in terms of scientific utility, has been confirmed. However, the instrument is not used in the Swiss context.
➢ It is likely that some adaptation will be necessary to make the instrument suitable for the domain of psychiatric care.
? Special permission for reproduction and modification must be obtained from the Canadian Institute for Health Information and the Agency for Health Care Research and Quality (USA).
➢ It is necessary to determine whether the instrument is suitable for the Swiss context, although its suitability for this purpose is very likely.

In summary, although the instrument exhibits some negative characteristics, it can easily be improved.

6 General considerations

In conclusion, we would like to make some suggestions pertaining to remarks that were made during our contact with the Swiss hospitals included in this research.

Remark 1: In some cases, patients are not able to respond either physically or mentally. This situation is particularly common in the context of psychiatric care, but it is also applicable to acute and rehabilitation care. At present, the questionnaire used by the ANQ does not offer the possibility to address this issue.

To take this aspect into account when designing the new instrument, the following options are proposed:

- ➔ Strictly identifying the eligible population (e.g., excluding patients with significant cognitive problems). However, excluding certain patient populations is not ethically sound, as their opinions are also important, and they should have the right to express those opinions.
- ➔ To allow patients who need help to complete the survey to ask for it. Some instruments analysed in this report take this possibility into account and ask a specific question about it (e.g., "Did you answer alone or did someone help you?"). We believe that this approach could enable more patients to participate in the surveys, although it should be emphasized that it is not possible to ask for help from a carer, to avoiding social desirability bias.

Remark 2: Each modification to the content of the instrument and/or the data collection procedure requires constant and costly (in terms of time and money) adaptation on the part of hospitals.

To reduce the likelihood of modifications occurring over a short period of time, the following option is proposed:

- ➔ As in the Canadian CPES-IC, it might be interesting to define a "short" and a "long" version of the instrument (see Section 7.1). The expert group could define a set of "core" questions that constitute the short version of the instrument and a set of "optional questions" that can be added to the short version to produce the long version. The long version could be used for the ANQ measure, while hospitals could use the short version for internal measurements in accordance with their needs. This approach could facilitate the generalization of the selected instrument as a single measure of patient satisfaction. A selection procedure for the core and optional questions based on the requirements of the ANQ and QA PatZu and the psychometric properties of the instrument could be included in the adaptation process, for example. A similar selection procedure has been tested with regard to other instruments measuring patients' satisfaction [6, 2].

7 Additional information

In Section 4.1.3, we noted that the CPES-IC (Canada) and the LUP (Denmark) will be subject to modifications in the future. These modifications are described in further detail in this section.

7.1 CPES-IC

According to our contacts with the CIHI, the main content and organization of the patient experience instrument will not change. As such, the version of the instrument analysed in this report is very similar to the revised instrument. In fact, the planned changes pertain to the definition of a short version and include the following points:

- Q4, Q8-Q30, Q32-Q34, Q39-Q40, Q47, and Q48 (from the existing survey) will be **removed** from the short survey. Some of these questions will be replaced by new/enhanced topics (that will be included in the short survey), while others will be replaced to ensure alignment with the new corporate standards of CIHI (i.e., the Gender question will be split into two questions, one of which asks about Sex at Birth, while the other asks about Gender Identity; the Race/ethnicity question will be split into two questions inquiring into Indigenous Identity and then Racialized group).
- New/enhanced question topics include an inquiry into how the patient's understanding of their condition has changed (like existing Q39) and instances of conflicting information from staff.
- The short survey will also include all questions that are currently used to calculate 5 of the 23 patient-reported experience measures (PREMs) that are publicly available on CIHI's Your Health System Web Tool. These measures include the following:
    1. Communication with Nurses (i.e., Information)
    2. Communication with Doctors (i.e., Information)
    3. Involvement in Decision-Making and Treatment Options (i.e., Involvement)
    4. Information and Understanding when Leaving the Hospital (i.e., Discharge)
    5. Overall Hospital Experience (i.e., Overall evaluation)

With respect to the development of the "short survey", there are currently no requirements for hospitals to conduct a survey and submit CPES-IC data to CIHI. The implementation of the long and short surveys should allow hospitals that choose to participate to conduct and submit at least the latter while continuing to provide the the option of also implementing the former. Thus, hospitals will be able to use the short survey, the long survey or both depending on their survey needs.

Regarding changes to the wording of the survey, the process remains ongoing at the time of writing. CIHI has indicated (through personal communication) that these alterations represent minor changes to the wording of the questions. Therefore, the questions that have been analysed in this report can be the equivalents of their revised versions in this respect.

According to the available information regarding the "short survey", it does not address two main themes (i.e., Admission and Organization) as well as one secondary theme (i.e., Safety) included in the requirements. Therefore, the future "short version" of the CPES-IC does not fulfil the main requirements and cannot be considered to represent an alternative to the long version of the instrument.

7.2 LUP (Denmark)

The version of the LUP analysed in this report includes 39 questions and meets the requirements of the ANQ and QA PatZu identified during the first step. However, this instrument was not included in the second stage, as it is no longer in use as of 2022. Beginning in that year, three versions of the survey, which differ slightly from each other and cover different domains (i.e., inpatients and planned outpatients, unplanned outpatients, and maternity), are in use. Unlike the CPES-IC, these revised versions are very different from the previously employed version. Thus, the information necessary for a satisfactory evaluation of the new versions remains missing, and the old version is no longer relevant in the context in which it was designed. For this reason, the latter version has not been retained in this report. Nevertheless, we analysed the content of these new versions for the sake of transparency (only the version pertaining to inpatients and planned outpatients was considered). Table 12 presents a detailed description of the content of the instrument.

Table 12: Detailed description of the LUP 2022 instrument (short version)

Information		LUP 2022
Number of questions[b]		10
Number of PROMs		0
N of screening questions		0
Number of items	Admission	0
	Information	3
	Involvement	1
	Organization	0
	Discharge	1
Sec. them	Security	1
	Medication	0
	Other	Feeling that a particular doctor took overall responsibility for the overall stay (1); Satisfaction with treatment (1)
Overall satisfaction		1
Recommendation		0
Language(s)		Da
Commentary questions		None
Additional themes (not evaluated)		None

[b] Sociodemographic questions were not included in the instrument.

According to the available information regarding the 2022 short version of the LUP, it does not address two main themes (i.e., Admission and Organization) as well as one secondary theme (i.e., Medication). Therefore, the 2022 LUP version does not fulfil the main requirements and cannot be considered to constitute an alternative to the analysed version of the instrument.

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