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Standardizing second victim support: development of the RESCUE certification framework for health care institutions

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Abstract

Background The implementation of structured support programs for health care workers affected as second victims remains highly variable across health care settings. Although several pioneering initiatives exist, a standardized, evidence-based certification framework to guide institutions in designing, implementing, and sustaining these interventions was lacking in Europe.

Objective This study aimed to develop a standardized certification system for second victim support interventions and to pragmatically validate its feasibility, clarity, evidence sufficiency, and audit operability across hospitals, primary care, and long-term care settings.

Methods A qualitative study was conducted. The RESCUE certification framework was developed using a structured, multiphase process informed by Framework Analysis. The process included a literature review, expert consensus, feasibility assessment, pilot testing, and refinement. Experts from 20 countries participated in the development and validation of the standards, ensuring alignment with diverse health care contexts and national regulations. Two certification tracks were defined: support interventions and peer supporter training.

Results Iterative consensus and pilot feedback reduced overlaps, removed items with low feasibility or regulatory conflicts, and specified auditable evidence, resulting in 30 intervention standards and 11 training standards for second victim support interventions, categorized into elementary and advanced levels. Pilot testing in nine institutions across six countries indicated the feasibility, clarity, and applicability of the standards and audit procedures. Stakeholders reported that the certification promotes institutional commitment, enhances program sustainability, and contributes to a safer work environment.

Conclusions RESCUE certification provides a structured, adaptable, and feasible framework for second victim support interventions in Europe. It fosters organizational learning, reinforces a Just Culture, and strengthens the resilience of health care professionals, ultimately contributing to workforce well-being and patient safety.

Clinical trials ClinicalTrials.gov NCT06888297.

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Introduction

In recent years, the phenomenon of the second victim has gained significant attention in the scientific community, with over 2,800 published articles, including 57 systematic reviews and a policy statement endorsed by a broad range of researchers [1]. This growing body of research has helped define its scope, develop instruments to assess its prevalence, describe the most common emotional and behavioral responses, and analyze its impact on patient safety. Additionally, key components of support interventions have been identified [2], along with the typical trajectory experienced by second victims [3]. Structured peer support has emerged as a central approach, integrating referral pathways to professional and specialized services when needed [4].

More recently, the definition of the second victim has been revised and expanded, adopting a more comprehensive perspective [5]. This conceptualization includes both direct and indirect involvement, focuses on the emotional impact rather than causality, and better reflects current institutional support approaches.

Simultaneously, the staged support model has evolved into a five-stage system [6], incorporating prevention and self-care as critical components in addressing the second victim phenomenon. Furthermore, comparative analyses—particularly within Europe—have evaluated different approaches to second victim support interventions, identifying core elements that can guide institutions in designing and implementing effective, context-specific interventions [7]. These studies have also demonstrated the economic impact of such interventions, showing cost savings that enable them to be self-sustaining within European health care systems [8]. This progress has been accompanied by the implementation of patient safety and workforce well-being policies [9], which have driven a significant increase in support programs in recent years. These interventions are expected to contribute to strengthening a safety culture, further enhancing their cost-effectiveness and long-term sustainability [10].

Support interventions for second victims center on peer-based emotional first aid—active listening, normalization of reactions, and basic coping strategies—with access, when needed, to group sessions, structured follow-up, or referral to professional mental health services [7]. The peer-supporter role is pivotal: trained colleagues provide timely, confidential, and trusted assistance. Training covers the second-victim phenomenon, communication and active listening skills, recognition of distress severity, and referral criteria, typically reinforced through role-play and supervision [11].

Despite these advances, the implementation of structured support programs remains highly variable across health care settings and countries. While pioneering initiatives such as ForYou Team [12] and RISE [13]' have established standardized peer-support models in the US, many institutions lack clear guidelines on how to initiate, structure, and sustain such support interventions. Indeed, the interventions implemented in Europe have been developed under different regulations, in diverse social, cultural, and organizational settings. While core elements are common, other aspects of the interventions are heterogeneous. This diversity enriches the overall outcome and facilitates mutual learning, enabling the implementation of new second victim support interventions. On the other hand, the lack of shared guidelines limits the development of new interventions, ultimately hampering wide adoption of second victim support programs. In this regard, there has been a growing number of requests for guidance on launching second victim interventions, highlighting an urgent need to provide consistent, evidence-based frameworks to support health and care workers facing high levels of work-related stress. This interest also extends in Europe, this interest also extends to settings beyond hospitals, such as primary care and long-term care services, where we are increasingly aware of the occurrence of the second victim phenomenon in a similar way to what is already known to happen in hospitals [14].

This need has become particularly evident in the post-COVID era, where the psychological toll on health care workers has underscored the necessity of systematic, high-quality support mechanisms. In response to this challenge, certification emerges as a crucial strategy to ensure that second victim support interventions adhere to best practices, maintain institutional commitment, and enhance both health and care workers well-being and quality of care (including ensuring patient safety) outcomes. Establishing a robust certification standard provides organizations with a structured, validated framework to assess, implement, and continuously improve their second victim support interventions.

The study aims to describe the development of a standardized certification system for second victim support interventions, leveraging existing knowledge and experiences across European health care institutions. Since events that test the resilience of health care professionals can occur in hospitals, primary care, and long-term care, the certification is designed to encompass all three settings, ensuring broad applicability and sustainability.

Methods

This qualitative study is part of RESCUE, funded by the European Cooperation in Science and Technology (COST) Association, which aims to establish a certification standard for second victim support interventions based on previous knowledge and experiences in Europe [1]. RESCUE is the practical translation of the studies and approaches developed by the European Researchers' Network Working on Second Victims (ERNST) over the previous four years on the second-victim phenomenon and how to address it.

To achieve our objectives, a structured approach based on Framework Analysis [15] was applied, integrating theoretical and empirical evidence to develop and validate the certification standard. Framework Analysis was selected for its structured, matrix-based approach, which allows for systematic comparison across different institutions and contexts, ensuring transparency and consistency in developing the certification framework.

The study was conducted between October 2024 and September 2025.

Ethics

The study protocol for the study involving expert and pilots testing was approved by the Sant Joan Hospital Ethics Research Board (Spain), reference 24/077 (12/17/2024). Participation was entirely voluntary following informed consent, and the principles of the 2024 Declaration of Helsinki were fully respected. The study was registered on ClinicalTrials.gov (Identifier: NCT06888297, registered 02/24/2025).

Participants

Participants encompassed the Core Group, the Team Group, the Steering Committee, and the auditors.

A Core Group was established, comprising ten leading experts in the study of the second victim phenomenon, representing Austria, Croatia, Denmark, Finland, Germany, Italy, Portugal, and Spain. This group played a central role in defining the project's scope and priorities. It was responsible for guiding the project through critical phases and actively participated in all project sessions.

A Team Group was formed to ensure a comprehensive and multidisciplinary approach, integrating researchers, clinicians, managers, and academics from multiple countries (Austria, Belgium, Bosnia & Herzegovina, Croatia, Estonia, Finland, Germany, Ireland, Israel, Italy, North Macedonia, Malta, Norway, Portugal, Romania, Serbia, Slovakia, Spain, and Ukraine), ensuring a broad representation of perspectives and expertise. They assumed the development of standards, sources of evidence and their adequacy to national regulations and feasibility.

A Steering Committee was created to assess pilot outcomes and make decisions regarding the structure, procedures, and materials required for the RESCUE certification. This committee included 11 experts from 7 countries (Belgium, Israel, Italy, Malta, Poland, Spain, and United States), selected for their leadership in second victim support interventions in Europe and practical experience across the various health care settings where the RESCUE certification will be applied.

Pilots were conducted by trained auditors. The first wave included seven auditors from Israel, Italy, and Spain; the second wave included six auditors from Austria, Germany, Portugal, and Spain. Auditors were selected for their experience in patient safety, health care worker resilience, and the conduct of health care quality audits, and were drawn from hospitals, primary care, and long-term care settings.

Definition

The definition of second victims developed by the European Researchers' Network working on Second Victims (ERNST) was used [5]: any health care worker, directly or indirectly involved in an unanticipated adverse patient event, unintentional health care error, or patient injury, and who becomes victimized in the sense that they are also negatively impacted.

The five-stage model proposed by Seys et al. [6] was adopted as a conceptual framework to structure the range of actions that health care institutions can implement to support second victims and mitigate the impact of such events. It includes prevention, self-care, peer support and triage, structured professional support, and structured clinical support.

Peer support is a structured, time-bound and confidential colleague-to-colleague response delivered by trained health-care workers to a peer who has been emotionally impacted by unanticipated adverse patient event, unintentional health care error, or patient injury. It provides psychological first aid—active listening, validation and normalization of reactions, brief coping strategies, initial risk screening and assisted referral—without replacing clinical care, incident investigation, or managerial processes.

Study phases

This study was structured into five consecutive phases (Fig. 1), combining evidence synthesis, expert consensus, and pilot testing to ensure the development of a robust and context-sensitive certification framework. A normative (standards-based) evaluation [16] was adopted. Phases 1–2 addressed the development of the RESCUE certification system, whereas Phases 3–4 provided a pragmatic validation in real-world settings, focusing on feasibility, clarity, evidence sufficiency, and end-to-end audit operability. The unit of analysis was the organization-level certification process.

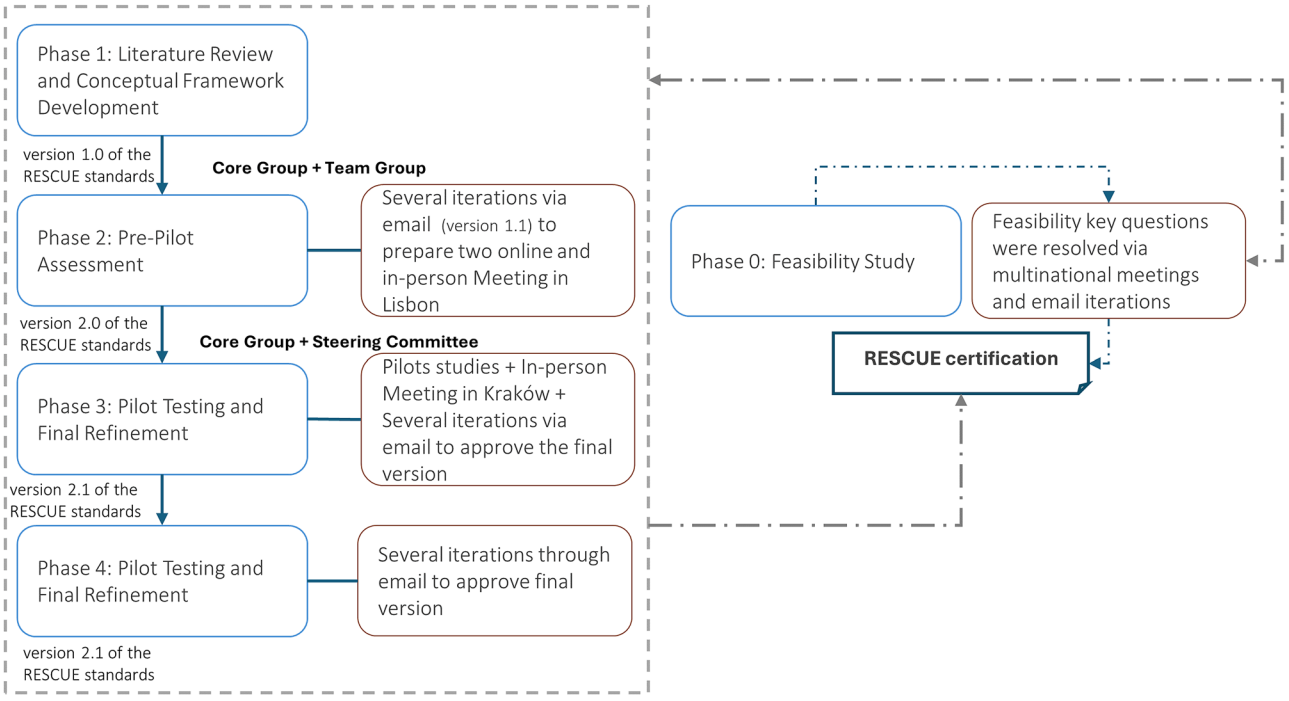

Fig. 1 Study flowchart

Phase 0 involved a feasibility assessment to determine whether the proposed certification system warranted further development, using Bowen's eight-domain framework [17].

Phase 1 focused on developing the conceptual framework and drafting the initial set of certification standards. It was conducted from October to December 2024, using framework analysis with inductive–deductive coding and matrix charting.

Phase 2 entailed expert review and refinement of the proposed standards, ensuring their clarity, feasibility, and alignment with diverse health care contexts, via a Delphi-style online round and an in-person consensus workshop, with rapid content analysis of free-text comments. It was conducted from December 2024 to April 2025.

Phase 3 involved pilot testing and final refinement of the framework and audit procedure in selected institutions, using semi-structured interviews, cognitive debriefing during audit walk-throughs, and triangulation of auditor/auditee narratives. It was conducted in May 2025.

Phase 4 validated the audit procedure and finalized the operational process for certification delivery, through cross-case comparison, and a brief process evaluation. It was conducted from July to September 2025.

This stepwise approach ensured that each stage built upon the previous one, leading to a certification system that is evidence-based, adaptable, and feasible across multiple health care settings.

Table 1 Feasibility evaluation domains (adapted from Bowen et al.)

Area of focus	Feasibility Question
Acceptability	To what extent is the new process perceived as suitable, satisfying, or attractive?
Demand	To what extent is the new process likely to be used and needed?
Implementation	Can the new process be successfully delivered in real-world settings?
Practicality	Can the process be carried out with existing resources and systems?
Adaptation	How well does the process function when tailored for different contexts/populations?
Integration	Can the process be embedded within existing organizational frameworks?
Expansion	Can the process be scaled to new programs or services?
Limited efficacy	Does the process show early promise of effectiveness, even under controlled settings?

Phase 0: feasibility study

Before the development and implementation of the RESCUE Certification Framework, a foundational feasibility analysis was conducted by the Core Group to determine whether the proposed intervention warranted full-scale development and evaluation. This preparatory phase applied the model proposed by Bowen et al. [17], which offers a structured methodology to assess early feasibility across eight domains: acceptability, demand, implementation, practicality, adaptation, integration, expansion, and limited efficacy (see Table 1).

This analysis served as a conceptual groundwork that informed the design choices, evaluation strategies, and piloting approach used in the subsequent phases. By clarifying the practical, contextual, and systemic conditions required for a certification framework to succeed across diverse health care environments, Phase 0 helped ensure that later phases were methodologically sound, context-sensitive, and aligned with real-world implementation needs.

RESCUE development

Phase 1: literature review and conceptual framework development

A systematic mapping of relevant data sources was performed by the Core Group, including scientific literature, regulatory frameworks, and theoretical models related to second victims and certification processes. The literature review followed a structured approach to ensure the comprehensive identification of relevant sources. A search was conducted in databases such as PubMed, Scopus, and Web of Science. We limited the search to the last five years aiming to include only the most recent literature. The search strategy included keywords such as "second victim," "peer support," "health care intervention certification," and "support program evaluation," either individually or in combination with terms like "systematic review" and "scoping review." Gray literature -such as institutional reports and second victim support interventions websites in USA and Europe- were also reviewed. Data were extracted using a standardized matrix to identify key components of second victim support interventions, outcome measures, and peer supporter training frameworks. The review included recent systematic reviews, studies on peer supporter training, and research describing second victim support interventions and their outcomes. In particular, studies conducted by the ERNST consortium over the past four years were prioritized. These studies ranged from updating the definition of the second victim [5] to proposing a five-stage intervention model [6] (from prevention to specialized care for severe cases); identifying core components of support interventions based on a global systematic review [2] and interviews with European program leaders [7]; conducting a systematic review of peer-supporter training in health care and other high-risk industries with a mapping of essential competencies [18]; and reaching consensus on indicators to assess the effectiveness of support interventions [19]. We prioritized ERNST outputs because over the last 6 years, this European Consortium (integrating academics and clinicians from more than 38 countries) has produced peer-reviewed work that (i) updates the second-victim definition, (ii) proposes a five-stage intervention model spanning prevention to specialized care, (iii) identifies core components of support programs through a global systematic review plus interviews with European program leads, (iv) maps essential peer-supporter competencies, and (v) reaches consensus on indicators to evaluate intervention effectiveness. Building on this corpus ensured conceptual consistency across constructs (definition, components, competencies, indicators) and practical applicability to European health systems. To reduce any risk of "network bias," we triangulated ERNST findings with non-ERNST literature and included external sources whenever they added complementary or higher-quality evidence (see Methods/Selection criteria and the reference list). To mitigate selection bias, ERNST outputs were cross-checked against independent international evidence, and non-ERNST studies were included when they provided complementary or stronger evidence.

This analysis allowed us to identify key concepts, recurring themes, quality criteria, and patterns in second-victim support interventions. Core concepts were extracted and defined, distinguishing essential requirements from best practices, recommendations, and evidence. These elements were categorized and subsequently converted into formal certification standards. A template was used to categorize the pertinent information for each standard (Supplementary material 1). Then, an international group of eight professionals and researchers from four European countries specializing in second victim interventions and belonging to the Team Group reviewed, refined, and validated the proposed elements, ensuring their relevance, applicability, and feasibility within different health care contexts. For each standard, potential evidence sources were identified, as well as the methods used for compliance assessment during the audit process. Additionally, sources of evidence were identified, along with a description of their nature and the verification methods that would allow compliance to be assessed during an audit. Standards for which this information could not be collected were discarded.

Thus, the relationships between the concepts underlying the standards were analyzed to ensure coherence within the RESCUE framework. Once the preliminary list of refined standards was finalized, the identified certification elements were organized into meaningful categories, such as institutional policy; key components of support interventions and peer supporter training.

The categorization process was conducted adopting a combined inductive and deductive coding approach. Initially, a predefined framework based on existing second victim models was used to organize elements into broad categories. Subsequently, iterative discussions among expert panel members allowed for the refinement of categories through consensus. A thematic matrix was developed to visualize the relationships between standards, ensuring conceptual clarity and minimizing redundancy.

To enhance inter-rater reliability, independent coding was performed by three researchers, with discrepancies resolved through group discussion. Additionally, during this phase, it was decided to develop two separate certification tracks:

Certification of Second Victim Support Interventions (RESCUE-Intervention), which evaluates the implementation and quality of structured programs within health care institutions.

Certification of Peer Supporter Training Programs (RESCUE-Training), recognizing that in some cases, peer supporter training is conducted externally rather than within the institution implementing the intervention.

This approach better accommodated Europe's diverse contexts, where some institutions both provide support and train peer supporters, while others focus exclusively on peer-supporter training.

This work resulted in version 1.0 of the RESCUE standards for both certifications.

Phase 2: pre-pilot assessment

Then, the standards—grouped by category—were reviewed by all Team Group members using a Delphi-style online round followed by an in-person consensus meeting, after an initial screening that removed items with lower levels of agreement.

Expert validation followed a structured consensus approach using a qualitative consensus technique. Experts were selected based on their recognized expertise in second victim interventions, certification processes, or health care quality improvement, ensuring representation from different health care settings and European countries. The process involved experts providing individual ratings on the clarity, feasibility, and relevance of each standard, accompanied by qualitative comments. This approach ensured that only well-supported, contextually relevant standards were advanced to the next phase. This review aimed to discard standards considered unfeasible or those that could potentially conflict with national regulations, identifying any legal or institutional barriers that might hinder the implementation of specific certification standards. Any elements flagged as infeasible or problematic in at least two countries were either modified or discarded to ensure the framework's broad applicability across different European health care systems. This work resulted in version 1.1 of the RESCUE standards for the certification of second victim support interventions.

Version 1.1 was presented and discussed during a face-to-face expert meeting held in Lisbon on February 8–9, 2025, to further refine the proposed standards. This meeting involved the RESCUE Team. The meeting focused on evaluating the relevance, adequacy, feasibility, and overall impact of each standard in improving second victim support interventions. This discussion led to a final consensus-based selection of certification elements, structured into the two previously defined certification systems. This process resulted in Version 2.0 of the certification standards. Moreover, the need to develop a glossary emerged to enhance clarity and ensure a common understanding of the agreed-upon standards (see Supplementary material 2).

Each retained standard was discussed and refined seeking unanimity, tagged with its dominant provenance (literature or expert consensus), and mapped to specific acceptable evidence.

In parallel, during this meeting, the certification procedure was agreed upon, based on a mixed system combining self-evaluation followed by an external audit. The process milestones, timelines, scope, and validity were also defined.

Pragmatic validation

Phase 3: pilot testing and final refinement

In this phase, we conducted time-bounded field tests to assess the feasibility, clarity, and practical usability of the RESCUE certification package. Expert auditors worked with participating institutions to (i) check whether each standard could be unambiguously interpreted, (ii) verify that the proposed sources of evidence were realistically obtainable, and (iii) rehearse the end-to-end audit sequence under real-world constraints. This phase included four pilots, a hybrid meeting in Kraków, May 7–9, 2025, and document review conducted through email correspondence. The pilots aimed to evaluate whether the descriptions of the standards were clear and appropriate, as well as to identify any potential gaps that may have been overlooked in the system. Additionally, the process assessed whether the predefined verification methods for compliance were accurate and effective in confirming adherence to the standards. This phase involved the Steering Committee and the auditors.

We used an ad hoc questionnaire for both auditors and auditees to inform procedural refinements and rewording of standards. Items asked respondents to rate the clarity of standards and instructions, the utility and acceptability of the process, and the ease of navigating the RESCUE web platform on Likert scales. For example, clarity was rated from Very unclear to Very clear, and utility from Not useful to Extremely useful.

The pilots were conducted by the auditors in two hospitals and two nursing home organizations across three countries (Israel, Italy, and Spain). This sample was non-random and purposive: sites were chosen for their pioneering implementation of support interventions, institutional leadership, capacity to provide documents and complete a self-assessment dossier, availability to participate in structured interviews, and the absence of

legal or regulatory barriers to sharing the required evidence. A total of seven auditors participated. They were recruited based on their experience with previous quality certifications in health care institutions, their fluency in English, and their involvement in RESCUE objectives, preliminary standards, required evidence, and methods for verifying compliance. The pilots were conducted in the official language of each country. Findings from the first pilot phase (insights from auditors and auditees) were used to refine and adjust the certification criteria. To strengthen reliability, sites and auditors were purposively selected to encompass a broad range of European second-victim support experiences and contexts—spanning multiple countries, legal and regulatory frameworks, patient-safety cultures, and leadership styles—so that the standards were stress-tested under heterogeneous real-world conditions.

Qualitative data were collected through discussions between the Steering Committee, auditors, and representatives from the audited institutions where the pilots were conducted. The exchange of views and experiences using the RESCUE system focused on assessing the perceived clarity, feasibility, and impact of the standards. Group discussions facilitated the identification of implementation challenges and potential improvements. Quantitative data were restricted to point-in-time assessments of certification criteria, turnaround time for site testing, and self-reported confidence in the accuracy of compliance information. Triangulation of findings across pilot experiences ensured a comprehensive assessment of the framework's applicability.

In May 2025, in Kraków, the Steering Committee, together with the auditors who had conducted the pilots, held a debriefing session and reviewed the auditees' reports. These materials were prepared using a predefined reporting structure—including a self-assessment dossier, and templated fields to propose rewording of standards and adjustments to evidence sources—and were used to analyze the strengths and weaknesses of the RESCUE system. During this session, the evidence used, the understanding of the standards, the challenges in correctly interpreting them, and the suitability of the procedure and the online platform for managing applications and audits were reviewed. This step also included expert validation and the formalization of the certification document, establishing mechanisms for long-term monitoring, evaluation, and periodic updates. This work led to the creation of the RESCUE Standards Version 2.1.

Phase 4: pilot testing of the audit procedure

Next, a second round was conducted in four hospitals and one primary care organization across three countries (Austria, Belgium, and Portugal), using a different approach to test and confirm the adequacy of the procedure designed. These audits were conducted between July and September 2025. The Core Group reviewed the information and findings from this second pilot phase, adopting the necessary measures to ensure the robustness, clarity, and applicability of the procedure. Their analysis focused on validating the audit sequence, verifying the consistency of compliance assessment methods, and addressing any ambiguities identified during field implementation. Based on this review, minor adjustments were made to strengthen the overall coherence and reliability of the certification process before final deployment (RESCUE Standards Version 2.2).

Results

Standards development and agreement (Phase 1)

A total of 64 published articles, 11 websites, and 7 institutional reports were identified and reviewed by the Core Group. Based on the initial analysis of the collected information, 104 key elements were extracted and categorized into preliminary standards (69 regarding support interventions and 35 regarding training peer supporters). Through an iterative process, this led to 83 potential standards for second victim support interventions and 39 potential standards for peer supporter training (version 1.0), under the oversight and endorsement of the Team Group.

Pre-pilot assessment (Phase 2)

All proposed standards from version 1.0 underwent a thorough expert review. Several items were revised for clarity, some were merged due to conceptual overlap, and others were removed due to feasibility concerns, redundant elements, conflicts with national regulations, and deemed impractical. The consensus procedure ensured agreement on the final list of standards included in version 1.1 through structured expert discussions. Table 2 presents the initial number of standards, detailing those that were retained and those that were removed throughout the review process.

A feasibility assessment identified legal and institutional barriers in the countries, leading to further modifications or removal of 42 standards (27 related to support interventions and 15 to peer supporter training). During the Lisbon expert meeting, the refined version of the framework was reviewed, resulting in 29 finalized standards for support interventions and 12 finalized standards for peer supporter training after adjustment (version 2.0). In this stage, the previous separation between competencies and peer supporter training was merged into a single set of training standards, while the distinction between elementary and advanced levels was retained for support interventions.

The refinement process highlighted recurring needs: clarify terminology, ensure cross-category consistency,

Table 2 Number of standards retained through consensus procedure (v1.0 to v1.1)

Standards for peer supporter training			
	Training	Competencies	Total
Initial proposal (v1.0)	14	25	39
Retained (v1.1)	13	14	27
Standards for second victim support interventions			
	Elementary level	Advanced level	Total
Document from phase 1 (v1.0)	54	29	83
Retained (v1.1)	47	21	68

Table 3 Number of standards retained through consensus procedure (v2.0 to v2.1)

Standards for peer supporter training			
	Training		Total
Version 2.0	12		12
Version 2.1	11		11
Standards for second victim support interventions			
	Elementary level	Advanced level	Total
Version 2.0	17	12	29
Version 2.1	17	13	30

and tighten criteria for broader applicability. Examples included adding "comply with applicable national or regional regulations"; defining cadence ("outreach at least quarterly" with two annual recruitment windows for new peer supporters); merging overlapping items; requiring "formal revision at least every two years or after major organizational changes/incidents"; and clarifying availability as "continuous (24/7) or via a documented escalation pathway ensuring round-the-clock access." Differences in national regulations and institutional structures led to the removal of 12 additional standards deemed impractical in multiple countries, yielding a final set that is adaptable, feasible, and aligned with international best practices.

Testing and refinement (Phase 3)

The first wave of pilot testing revealed several key challenges related to implementation, including resource limitations, variations in institutional policies, and significant differences in the level of peer supporter training across different settings. Additionally, specific issues were identified in organizations with multiple facilities spread across different regions, which often share common policies and resources, as well as in smaller institutions that rely heavily on external resources, temporary staff, and contracted peer supporters.

The timeframe for conducting the audits was set at 6 to 8 hours. The Auditor Code of Ethics was also reviewed and approved by consensus (see Supplementary Material 3).

Qualitative feedback highlighted concerns about the feasibility of 9 standards, particularly those requiring external coordination or extensive institutional resources. In response, 1 training standard was removed. Additionally, 1 new standard was added under support interventions based on pilot site recommendations. Two standards were reworded to explicitly cover professionals who work across multiple sites, as well as residents and undergraduate students. Minor wording changes were introduced in 16 standards to improve clarity, consistency, and applicability. Ultimately, two core standards for peer supporter training and four core standards for support interventions were formally established. As a result, modifications were introduced to streamline requirements and improve standard applicability (See Supplementary Material 4).

During the second wave of pilot testing, the refined framework indicated good feasibility, clarity, and applicability within participating contexts. Overall, the final framework was rated as highly applicable across diverse health care settings.

Table 3 summarizes the number of standards that were agreed upon during phase 3 after two consensus meetings and pilots.

The RESCUE standards propose a staged, practical package of SV support that institutions can implement. At its core is peer support. Around this nucleus, the standards require organizational commitment and Just Culture policies; awareness actions and a short self-care guide with proactive outreach within 24–48 hours; simple activation routes (hotline or secure email) and timely contact; clear referral pathways to occupational and mental-health services; group debrief/psychoeducation when appropriate; return-to-work planning and medicolegal orientation; confidentiality and data-protection safeguards; selection, training, and supervision of peer supporters; equitable access across sites and shifts with 24/7

coverage or an escalation pathway; monitoring with a small set of indicators to drive continuous improvement.

Stakeholder acceptance of the RESCUE certification system

Feedback from participating institutions and stakeholders indicated an overall positive reception of the certification system. Health care organizations expressed strong support for structured second victim interventions and peer supporter training. However, some concerns were raised about the initial implementation workload, particularly regarding the documentation required for self-evaluation and audits. Institutions that had already implemented structured second victim support reported that the certification process helped standardize and validate their existing practices, while those without formal programs viewed the certification as a beneficial framework for initiating structured interventions. Most stakeholders agreed that the certification system would enhance institutional commitment to second victim support and improve long-term program sustainability. Table 4 provides an overview of the perspectives shared by participants (auditors and auditees) on both the RESCUE standards and the certification procedure.

In addition to the general endorsement, participants provided valuable suggestions for improving both the content and the implementation of the certification system. While the RESCUE standards were consistently rated as highly relevant and useful, some auditees and auditors identified specific challenges related to clarity and evidence requirements, particularly within the peer supporter training standards. One frequently mentioned issue was the difficulty of providing a single piece of evidence for standards that combined multiple expectations, suggesting the need to split or rephrase some of them. Additionally, both groups reported that evidence related to second victim interventions was generally easier to provide and assess than that related to training.

Regarding the self-assessment platform, feedback was largely positive but included concrete suggestions such as enabling annotations for uploaded documents and improving language consistency across interface elements (Table 4). In terms of the audit procedure, participants emphasized the importance of maintaining flexibility for smaller institutions and proposed clearer guidance on acceptable documentation and response timelines. Despite these issues, stakeholders viewed the certification as an important driver of institutional change, with potential to standardize best practices and promote sustainability. These insights directly informed refinements in the final version of the RESCUE framework.

Procedure for conducting self-evaluation and audit (Phase 4)

A clear consensus was reached on the need to establish a code of conduct for RESCUE staff and those serving as auditors. Additionally, agreements were made on the procedure for receiving applications, the process for conducting self-evaluations and audits, the criteria for auditor recruitment, response timelines, and the thresholds required to achieve certification. The outcomes of the steering group discussions can be found in Supplementary Material 5. It also includes instructions for applying for the RESCUE certification system, along with the timelines and the procedure for conducting the self-evaluation and audit. The application and audit procedure were structured into the steps outlined in Fig. 2.

An agenda, interview guide for different stakeholder groups, and the necessary supporting documents have been designed and validated to ensure consistency and reliability throughout the process.

Mechanisms for certification monitoring and updates

To ensure the long-term sustainability and relevance of the certification, a structured monitoring and evaluation framework was established. Certified institutions are

Table 4 Auditees' and auditors' assessment of the RESCUE standards and procedure

First wave of pilots	Relevance	Clarity	Applicability	Acceptability	Utility
Auditees	Highly relevant (majority)	Somewhat to very clear	Mixed (highly to slightly applicable)	Highly acceptable (all respondents)	Very to extremely useful
Auditors	Highly relevant (all respondents)	Somewhat to very clear (split evenly)	Highly to moderately applicable (majority highly)	Highly to somewhat acceptable (majority)	Extremely to very useful (majority extremely)
Second wave of pilots	**Relevance**	**Clarity**	**Applicability**	**Acceptability**	**Utility**
Auditees	Highly relevant	Somewhat easy to understand	Highly applicable	Highly acceptable	Very useful
Auditors	Highly relevant (all respondents)	Very clear (majority extremely)	Highly applicable (all respondents)	Highly acceptable (all respondents)	Extremely useful (majority) extremely

Note: $N = 16$ (auditees $n = 6$, auditors $n = 10$). Responses reflect the most frequent answer within each group. In cases of divergence, a summary range or indication of majority view is provided

Ratings used 5-point Likert scales with anchors as follows: Relevance (1 Not relevant–5 Extremely relevant), Clarity (1 Very unclear–5 Very clear), Applicability (1 Not applicable–5 Extremely applicable), Acceptability (1 Not acceptable–5 Extremely acceptable), Utility (1 Not useful–5 Extremely useful)

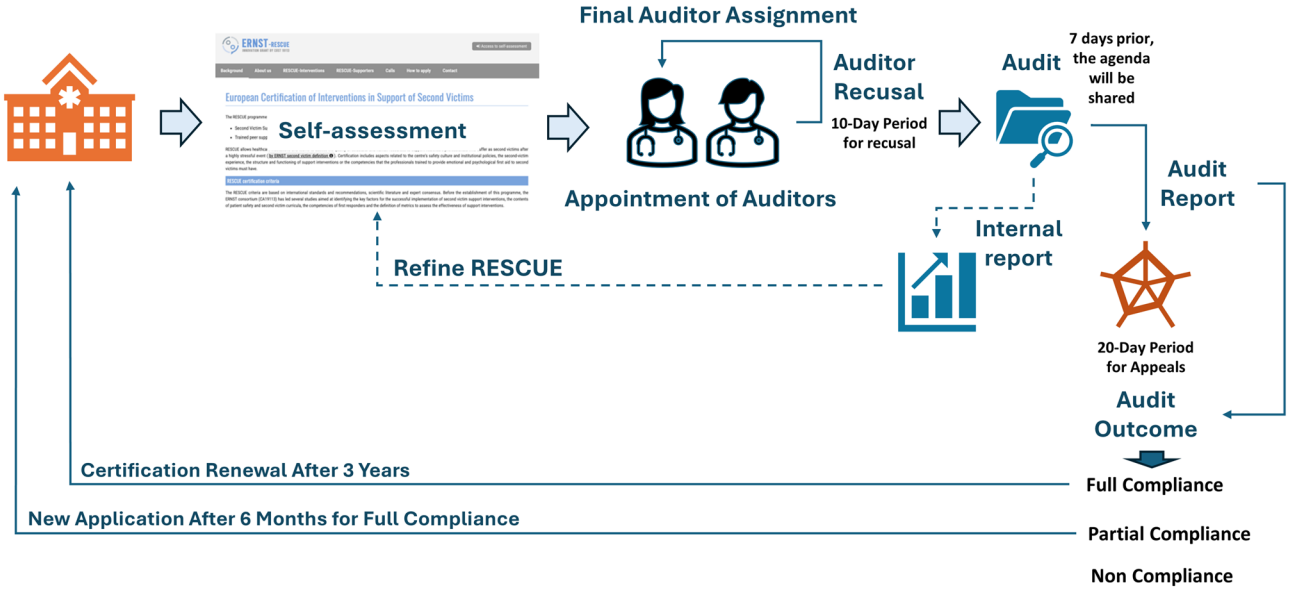

Fig. 2 RESCUE audit procedure

required to submit periodic self-assessments every three years, reporting on adherence to standards and any modifications made to their second victim support interventions. External audits will be conducted every three years to verify compliance and identify areas for improvement. A feedback mechanism will be implemented to allow certified organizations to contribute to future revisions of the standards, ensuring adaptability to evolving health care challenges and regulatory changes.

The analysis of multiple aspects critical to feasibility yielded the following results (Phase 0)

Perceived Need and Demand: Participants agreed on the strong necessity and growing demand for a standardized certification system for second victim support interventions across diverse health care settings. This demand was consistently expressed by institutional leaders and health care professionals, who acknowledged the emotional burden of adverse events and the current gap in structured psychosocial support. The post-COVID context further intensified this need, with increasing awareness of mental health challenges among health care workers.

Cultural and Legal Adaptation: The certification framework was considered adaptable to a wide range of organizational cultures and national legal systems. Discussions stressed the importance of aligning the standards with country-specific health care structures and regulations to ensure feasibility. Stakeholders reported that while certain legal or procedural differences exist, the framework's modular design allowed it to be effectively tailored without compromising its core purpose.

Stakeholder Insight and Practical Experience: Leaders of existing second victim interventions confirmed the relevance of the proposed standards and identified strong alignment with current best practices. In several cases, the standards were seen as reinforcing ongoing efforts, offering a structured format to validate and expand existing programs.

Potential Benefits and Cost Analysis: The analysis suggested that the certification offers considerable added value, including improved institutional credibility, workforce retention, reduced burnout, and enhanced patient safety. These benefits were weighed against the costs of implementation, which include personnel time, peer supporter training, and administrative requirements. The business plan developed within the RESCUE initiative demonstrates that with a projected fee structure and streamlined audit model, the certification process is both affordable and cost-effective for most institutions.

Institutional Capacity and Resources: The participating institutions varied in size and structure but shared a basic ability to integrate the RESCUE standards, provided there was clear guidance and adequate support. Existing human resources, especially in quality and patient safety departments, were identified as key enablers of certification readiness. Smaller organizations and decentralized systems were found to require additional flexibility and support.

Educational and Dissemination Potential: The RESCUE certification was identified as a powerful tool to promote awareness and stimulate the development of new second victim support programs, especially in underrepresented areas such as long-term and primary care. The inclusion of digital training tools and a structured certification

pathway was considered essential to promoting broad adoption and consistency.

Sustainability Factors: Key conditions for sustainability were identified, including strong institutional commitment, regular self-assessment, integration into quality improvement systems, and the presence of national or regional champions. Additionally, a multi-tiered support structure involving self-evaluation, peer learning, and external audit was viewed as essential to ensuring ongoing relevance and credibility.

Contextual barriers and facilitators related to scalability and long-term adoption were also identified. These included variations in digital infrastructure, differing levels of institutional maturity regarding staff support programs, and the need for continuous advocacy and policy engagement. Based on these findings, adjustments were made to the certification procedure to increase usability, particularly in smaller organizations and those operating across multiple sites.

Discussion

Key findings

Through international consensus, a set of standards has been identified to ensure the relevance, appropriateness, sustainability, and efficiency of second victim support interventions. The provenance of the standards: candidate standards were sourced from (i) the scientific and gray literature, (ii) expert consensus (Core Group/Team Group/Steering Committee), (iii) practitioner input and institutional experience of European leaders in the implementation of support interventions for second victims, and (iv) pilot-site feedback.

Institutional managers have agreed that, in addition to providing formal recognition for the effort involved in implementing these interventions, these standards also serve as an excellent roadmap for designing and implementing support systems in institutions that have not yet developed them.

The system is designed to be time-efficient and sustainable, requiring a clearly defined and limited time commitment. In its development, particular consideration was given to the specific characteristics of primary care [14] (small centers, sometimes with very few professionals, geographically dispersed) and long-term care institutions, such as nursing homes, residential care facilities, and assisted living centers. These institutions can range from large consortia with multiple facilities distributed across the territory to small centers with limited capacity and no qualified health care professionals on site. National regulations across different European countries were also taken into account when defining the standards, as well as the wide variety of existing models for peer supporter training and the design of support interventions, both at the institutional level and through third parties, such as professional associations.

Comparison with existing literature

To the best of our knowledge, this is the first certification designed to ensure the adequacy and sustainability of second victim support interventions on a global scale. However, the most distinctive elements identified in the scientific literature on second victims [2, 7], as well as in publications describing effective interventions [20], were taken into account, ensuring that the developed standards are aligned with these essential features. This work has been informed by the experiences of pioneering second victim support programs, their progressive development over time, and current approaches that emphasize building the resilience of health care professionals and their teams to effectively manage highly stressful and emotionally demanding situations [3].

The proposed standards fully respect and reinforce patients' rights, which are a key pillar of all second victim support strategies [21]. Beyond providing psychosocial support to health care professionals, these standards explicitly aim to protect patient safety by addressing risks that often go unnoticed, such as defensive medical practices driven by fear, anxiety, or lack of institutional support. At the same time, the standards recognize and uphold the rights of health care workers by acknowledging the inherent risks and emotional burden associated with their profession. Through the promotion of a Just Culture [22, 23], the framework encourages transparency, shared learning, and mutual respect, rather than blame, when adverse events occur. By doing so, the standards contribute to breaking the vicious cycle in which the distress of second victims becomes, in itself, a source of patient safety risks [1]. Instead, they promote an environment where open communication, support, and institutional commitment enable both health care professionals and organizations to learn from experience, strengthen resilience, and ultimately improve the quality of care and the overall working environment.

Strengths and contributions of the study

It involved extensive international collaboration, bringing together experts from multiple European countries. Several of the leading European experts and programs frequently cited in the literature actively participated in the RESCUE. This diversity of perspectives enriched the framework's design and ensured that the resulting standards are applicable across a wide range of health care settings, including hospitals, primary care, and nursing homes. The methodological approach employed a structured, step-by-step process that included literature review, expert consensus, and pilot testing. This comprehensive approach ensured that the certification

framework is both evidence-based and contextually relevant, reflecting the latest findings on second victim support.

Moreover, the study anticipates future challenges, aligning it with emerging evidence on second victim interventions. This forward-looking design ensures that the framework remains relevant as health care systems evolve. Importantly, the iterative development process incorporated extensive feedback from frontline professionals and institutional leaders, resulting in standards that are both feasible and context-sensitive.

RESCUE has also drawn lessons from other high-risk sectors, particularly transportation and energy, where support mechanisms for staff involved in adverse events have been established for decades [24]. For the first time, the RESCUE framework extends its scope beyond health care professionals in practice to include students in training. This decision is based on growing evidence suggesting that adverse events and other highly stressful situations witnessed during clinical placements in university education can have a significant impact on students and may shape their future professional practice [25].

Finally, the certification system includes mechanisms for ongoing monitoring, periodic external audits, and continuous improvement, promoting long-term adherence to best practices. This approach not only supports the sustainability of second victim support interventions but also reinforces the link between workforce well-being and patient safety, directly addressing critical challenges in the post-COVID era.

Limitations

The development of the certification framework was primarily based on experiences and data from European health care institutions, which may limit its immediate applicability in other regions with different regulatory environments, health care structures, and cultural contexts. The study relied heavily on expert consensus, which, while valuable for incorporating practical insights, can introduce subjectivity and potential bias. The pilot sites, while diverse in terms of care settings (e.g., hospitals, nursing homes, primary care), may not fully represent the full spectrum of health care environments where second victim interventions are needed.

The direct clinical or psychological impact of the certification on health care professionals was not evaluated. Furthermore, the certification framework, while comprehensive, requires significant institutional commitment, including resource allocation, staff training, and ongoing evaluation, which may pose barriers to adoption in resource-limited settings. The financial and administrative burden associated with the certification process could limit its scalability, especially in smaller institutions or those with fewer dedicated resources for workforce support. Finally, the study did not directly assess the long-term impact of certified interventions on workforce well-being or patient safety outcomes. Future studies should focus on long-term evaluations to confirm the sustained impact of the certification system on both health care professionals and patient safety.

Finally, our conclusions may be affected by selection bias (non-random, purposive inclusion of early-adopter sites), context bias (three jurisdictions in the first wave), time-window constraints, and observer/response bias (social desirability, Hawthorne).

Practical implications

A Theory of Change was adopted to embed audit–feedback that sustains use and incremental improvement without diluting core functions; because certification hinges on periodic audits, this same loop creates durable incentives to maintain standards and strengthen them over time.

RESCUE can serve as a powerful tool to address two fundamental questions consistently raised by institutional leaders and change agents: What can we do to get started? and how can support interventions be sustained over time? The RESCUE certification offers structured and actionable answers to both, guiding organizations through the initiation of well-defined support mechanisms and their integration into long-term strategic plans. Beyond fostering internal transformation, the certification facilitates standardization and benchmarking, enabling institutions to align their practices with international best practices and continuously improve their systems.

Top and middle managers may view RESCUE as a lever to drive Institutional Commitment and Cultural Change. In this regard, the certification represents a key opportunity to promote a Just Culture and strengthen professional resilience across health care and social care settings. By embedding second victim support into institutional quality and safety policies, RESCUE helps organizations cultivate a culture of transparency, psychological safety, and shared learning, essential pillars of high-reliability health care systems. Benchmarking among institutions that have implemented RESCUE can also support capacity-building efforts, helping organizations enhance their readiness and ability to embed a generative safety culture.

Finally, the implementation of certified support programs has the potential to positively impact workforce well-being by reducing burnout, improving job satisfaction, and strengthening resilience, particularly in high-stress environments such as emergency departments, primary care, and long-term care facilities. In doing so, RESCUE would contribute to the creation of safer and more supportive work environments and to the retention

of qualified professionals, since work environment factors are a major contributor to health workforce retention.

The certification system operationalizes the RESCUE Theory of Change pathway, providing the standards and audit mechanisms required to convert capacity-building activities into auditable outputs and expected workforce- and patient-safety outcomes [1]. Based on this theory, we developed clear, consensus-based standards for diverse institutions which—combined with self-assessment and external auditing—should enable institutions and staff to achieve organizational improvements that address the challenges of second-victim support.

Future research and next steps

Further research is needed to assess the long-term impact of certified second victim support programs, particularly their effectiveness in reducing psychological harm, fostering professional recovery, and improving key patient safety outcomes. In addition, future studies should explore the potential of emerging digital tools—particularly those based on artificial intelligence—to support second victims. These technologies remain largely undeveloped and underutilized in this context, yet they offer promising avenues for scalable and personalized support.

It is also important to investigate how the RESCUE framework can be adapted and implemented in low-resource settings or smaller health care organizations with limited infrastructure, as current pilot implementations have primarily taken place in larger institutions. Expanding its applicability to diverse health care environments will be essential to ensuring equitable access to support and promoting a broader cultural shift towards safety and resilience.

Finally, although there is still limited research on the economic impact of second victim support interventions, the preliminary data available suggest considerable cost savings, even when considering only the direct costs associated with the second victim phenomenon, such as lost working days [26]. Future analyses that take into account both tangible and intangible costs are very likely, based on these early findings, to demonstrate that such support programs are essentially self-financing. Moreover, they are expected to generate significant additional savings, ultimately contributing to the overall sustainability of the health care system.

Conclusions

The RESCUE certification framework represents a timely opportunity for health care institutions to implement structured, effective support systems for health care professionals affected by adverse events. Rather than simply standardizing existing practices, RESCUE provides a practical roadmap for organizations—particularly those with no formal support programs in place—seeking to take their first steps in protecting their staff and strengthening patient safety. By promoting a Just Culture, fostering organizational learning, and explicitly addressing the emotional and professional risks faced by health care workers, the certification contributes to breaking the cycle in which second victim distress becomes a hidden threat to care quality. The framework is designed to be adaptable to the realities of primary care, long-term care, and other settings with specific organizational challenges.

Pilot testing demonstrated that the certification is feasible, context-sensitive, and well received by health care organizations. In addition to supporting workforce well-being and resilience, early evidence suggests that certified programs may generate significant cost savings, reinforcing their long-term sustainability. Nonetheless, further research is needed to evaluate the direct clinical and psychological impact of certification, particularly on patient safety and professional recovery. Future studies should also explore its implementation in low-resource settings and the integration of digital tools to enhance support mechanisms. Ultimately, RESCUE offers health care organizations a structured, accessible, and sustainable tool to initiate and consolidate second victim support interventions, as a concrete step towards safer, more resilient health care systems.

Abbreviations

COST	European Cooperation in Science and Technology Association
ERNST	European Researchers' Network Working on Second Victims
RISE	Resilience in Stressful Events
USA	United States of America.

Supplementary information

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Supplementary material 1

Supplementary material 2

Supplementary material 3

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JJM and RS contributed to the conceptualization, overall project management, supervision, and coordination of the study. EP and KS contributed to the methodology, investigation, data curation, and formal analysis, and actively participated in the consensus meetings and standard-setting dynamics. MP and PS were responsible for validation, methodological refinement, and manuscript review and editing. BK and ST contributed to data curation, investigation, project coordination, and the promotion of the study in their respective countries. All authors were members of the Core Group, which guided the project through its critical phases, defined its scope and priorities, and participated actively in all project sessions to develop and refine the RESCUE certification standards. The Team Group and Steering Committee provided additional expertise, feedback, and validation throughout the process. All authors read and approved the final version of the manuscript.

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Data availability
The datasets generated and analyzed during the current study are not publicly available due to confidentiality agreements with participants and institutional data protection regulations, but anonymized excerpts of the qualitative data and supporting materials are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate
The study protocol for the study involving expert and pilots testing was approved by the Sant Joan Hospital Ethics Research Board (Spain), reference 24/077 (12/17/2024). Participation was entirely voluntary following informed consent, and the principles of the 2024 Declaration of Helsinki were fully respected.

Consent for publication
Not applicable. This study did not include any individual person's data in any form.

Competing interests
The authors declare no competing interests.

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