


## ORIGINAL ARTICLE

# Enabling patient safety awareness using the Green Cross method: A qualitative description of users' experience

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## Abstract

**Aim:** The Green Cross method was developed to support healthcare staff in daily patient safety work. The aim of this study was to describe users' experiences of the method when working with patient safety and their views on the core elements.

**Background:** Patient safety systems need to be user-friendly to facilitate learning from adverse events. The Green Cross method is described as a simple visual method to recognise risks and preventable adverse events (PAEs) in real time. There are no previous studies describing users' experiences of the Green Cross method.

**Design:** A qualitative descriptive design.

**Methods:** 32 healthcare workers and managers from different specialties in a Swedish hospital were interviewed, from May–September 2018 about their experiences of the Green Cross method; either individually or as part of a group. The interviews were analysed using thematic analysis. The study follows the COREQ guidelines for qualitative data.

**Results:** Participants associated the Green Cross method with patient safety, but no core elements of the method were identified. Instead, the opportunity to be engaged in patient safety work in a systematic way was underlined by all study participants. Highlighted key areas were the simplicity and the systematic framework of the method along with a need of distinct leadership. The daily meetings promoted trust and dialogue and developed the patient safety mindset. Daily meetings, together with the visualisation of the cross, were emphasised as important by users who otherwise had limited knowledge of the entire method.

**Conclusion:** This study offers valuable information that can help deepen the understanding of how the method specifically supports patient safety work.

**Relevance to clinical practice:** Healthcare workers are expected to report patient safety issues. This study presents user-friendly aspects of the method as well as limitations, relevant for present and future users.

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## KEYWORDS

accident prevention, health personnel, organisational culture, patient safety, safety management

## 1 | INTRODUCTION

Based on knowledge from high reliability organisations, a holistic approach to human error is thought to be a successful approach to safety (Weick et al., 1999). With this approach, focus is placed on what a system or organisation can provide to prevent individuals from making errors. Errors are seen as related to the system we work in, and there is a need for creating alerts to aid users. Thus, members of staff need a structured method to report and discuss safety issues (Institute of Medicine, 2000). The approach used in Sweden, and many other countries, is based on a reporting system, often called an incident-reporting (IR) system (Stavropoulou et al., 2015). It is used to facilitate structured reporting and provide an overview, thereby facilitating analysis (Health Quality Ontario, 2017). However, several aspects can influence the use of IR systems, such as the willingness to report incidents, problems with shared understandings based on different definitions, and organisational aspects such as who is responsible for reporting an incident. Developing our knowledge of the users' perspectives of working with different IR systems is one way of deepening our understanding of patient safety work, and this study will contribute with such knowledge regarding the Green Cross (GC).

## 2 | BACKGROUND

Even within well-developed systems adverse events will occur because of active failure and latent conditions (Reason, 2000). Reason defines active failure as "unsafe acts committed by people who are in direct contact with the patient or system" (Reason, 2000, p. 769), including slips, mistakes or procedural violations. Latent conditions on the other hand occur due to, for example, understaffing, inadequate equipment or unreliable alarms. Patient safety learning systems aim at, among other things, facilitate learning from adverse events. To fulfil this purpose, the system needs to be user-friendly (Health Quality Ontario, 2017).

In their systematic review on patient safety learning systems (Health Quality Ontario, 2017), Health Quality Ontario described components that facilitate or hinder the use of IR systems. Negative aspects can include, for example, limited organisational support, fear of blame or limited knowledge of how to define an error. Facilitating aspects can include role models (such as managers), the promotion of reporting, and clear guidelines on what to report. At the same time, several studies have pointed to differences in the perception of safety climates in relation to both work area and profession (Danielsson et al., 2017; Danielsson et al., 2018; Singer, Gaba, et al., 2009; Singer, Lin, et al., 2009), thus emphasising the individual as well as the organisation.

### What does this paper contribute to the wider global clinical community?

- To facilitate learning from adverse events, patient safety systems need to be user-friendly.
- Users of the patient safety method Green Cross highlight key areas such as its simplicity and systematic framework as supportive for dialogue and development of patient safety mindset.

Indicative of high reliability organisations is not only the use of a patient safety learning system but also their awareness of the need for a culture that promotes a focus on safety (Reason, 2000). Safety culture can be defined in several ways. Singer, Gaba, et al. (2009), Singer, Lin, et al. (2009, p. 400) define safety culture as "the values shared among organisation members about what is important, their beliefs about how things operate in the organisation, and the interaction of these with work units and organisational structures and systems, which together produce behavioural norms in the organisation that promotes safety." This definition of patient safety culture is used in a systematic review by DiCuccio as well (2015). Reason argues that awareness of the fact that failures will occur is pronounced in high reliability organisations and this is met by training staff to recognise and act when failures happen. In this way, the safety culture is made part of shared values among staff members (Reason, 2000).

In their systematic literature review on the effectiveness of IR systems, Stavropoulou et al. (2015) concluded that IR systems seem to be more effective when they are integrated with clinical work, and not centralised at the hospital, as this facilitates interaction and communication. Comparing different IR systems is not currently possible due to a lack of universal definitions of adverse events and risks of adverse events as well as outcomes.

The GC method can be described as an IR system as it is based on a procedure designed to identify risks and PAEs at the local level with a structure to summarise events and elevate them to a managerial or organisational level when needed. It includes both reactive and proactive components, as it underlines the importance of reporting and assessing the seriousness of both incidents and risks (Pham et al., 2013; Reason, 1997, pp 107-124).

The GC method was developed at Södra Älvsborg Hospital in 2011. The method was inspired by the Safety Cross, which was used to track workplace incidences. It is described as a simple visual method for healthcare workers to recognise risks and preventable

adverse events (PAEs) in real time. The GC method includes a short daily audit meeting, attended by team members. The focus is on employees reporting patient injuries or risk of injuries. This information is discussed to assess degree of seriousness. The assessment is entered into a report form used as a monthly summary. All days of each month are visualised, in the shape of a cross, and the daily assessment is also entered here. The colours green, orange and red represent the different levels of seriousness. Daily systematic improvement work is initiated based on identified risks and PAEs. Actual risk events and PAEs are reported to the hospital's incident-reporting system. The GC method includes seven distinct steps, see Figure 1. A detailed description of the GC method can be found in Källman et al. (2020). This study is the first to describe the GC method from a user's perspective.

### 3 | THE STUDY

#### 3.1 | Aims

The aim of this study was to describe users' experiences of the GC method when working with patient safety and their views on the core elements of the method.

## 4 | METHODS

### 4.1 | Design

We conducted a qualitative study to explore the descriptions of staff, including managers, of working with the GC method as well as their views on the core elements of the method. Semi-structured interviews were conducted individually and in groups. The study follows the Consolidated criteria for reporting qualitative research (see Appendix S1).

### 4.2 | Setting and sample

The interviews were conducted between May–September 2018, at a hospital in Sweden with around 4100 employees that provides medical care to both the county in which it is located as well as the wider region. Hospital units with documented experience of the GC method were included. These units represented a variety of specialties with inpatients and outpatients. They had worked with the GC method for varying lengths of time, which provided a maximum variation of contexts. We made a purposive choice to perform individual interviews as well as group interviews.

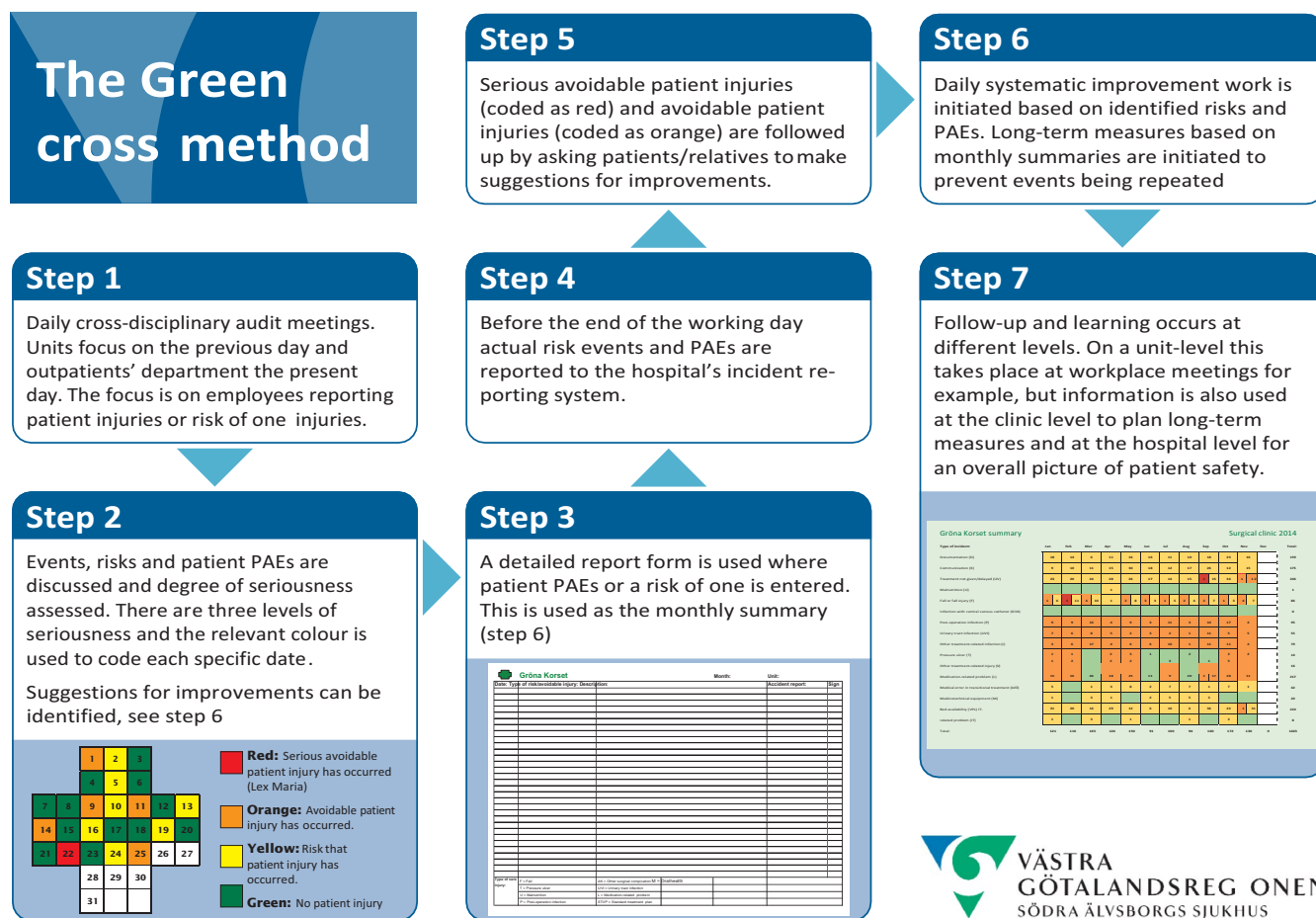


FIGURE 1 The seven steps of the Green Cross method [Colour figure can be viewed at wileyonlinelibrary.com]

Written information about the study and its aim was sent to hospital units meeting our inclusion criteria. The corresponding author made contact by telephone with a staff member who had experience of working with the GC method to provide more information about the study. We asked if there was the possibility of recruiting participants for individual interviews (people in a managerial position, operational and medical) and for group interviews (healthcare workers from different professions). A representative at the unit approached possible participants. All interviews were conducted at the hospital in a meeting room outside the participants' usual workplace.

The interviews were conducted by trained qualitative researchers. Individual interviews were on a one-to-one basis with either the last or the second author. The corresponding author conducted all the group interviews with the second author as an observer making field notes. A semi-structured interview guide was used.

### 4.3 | Data collection

A topic guide was developed and consisted of an initial broad question followed by specific questions. At the end of each interview, participants were given the opportunity to add information not previously covered. We used the same structure for all interviews regarding the local setting, written information and interview guide. The interview guide focused on the participants' present use of the GC method, knowledge of the formal GC method and what they considered to be the core elements of the GC method. Participants were also asked for suggestions for changes that could be made to the method. Open-ended questions were used, and the interviewer attempted to extract all aspects of the participants' experience of using the GC method. A folder describing the GC method was available for participants to refer to. The interviews lasted for an hour on average (range 36–76 min).

### 4.4 | Ethical considerations

The study was granted ethical approval by the Ethical Review Board, Sweden. All participants received written and verbal information

about the study. Prior to the start of each interview, consent forms were signed.

All interviews were audio recorded. Data were kept confidential and identifiers removed and kept separately.

### 4.5 | Data analysis

A thematic approach was used (Braun & Clarke, 2006) to analyse the data. The audio-recorded interviews were transcribed verbatim and checked. Transcriptions were read repeatedly for familiarisation. Three researchers (the corresponding author, the second and the last author) independently coded one individual interview each and discussed similarities and differences. The corresponding author then coded the remaining five individual interviews and the last and the second author familiarised themselves with the material through reading. Together with the second and the last author, this coding was discussed and adapted to make a list of codes that all three researchers agreed upon. The codes were grouped to form categories, and possible themes were discussed. The corresponding author coded the six group interviews, after which the second and the last author read the interviews and the codes were discussed as a group. These codes were also grouped into categories. As a final step, the categories from all interviews were condensed. At this stage, commonalities between the individual interviews and the group interviews could be identified, and we decided on themes. A summary of the coding framework can be seen in Table 1. The qualitative analysis software NVivo v.12 (QSR International Pty Ltd) was used to sort, arrange and rearrange the data.

### 4.6 | Rigour

We used various strategies to strengthen the trustworthiness of our findings. Credibility was targeted using both investigator triangulation and data triangulation (Guba, 1981; Knafl & Breitmayer, 1989). Information relating to setting and participant's demographic data together with quotes was used to increase transferability. The

TABLE 1 The coding framework

Categories; individual interviews	Themes (from collapsed categories)	Categories; group interviews
<ul style="list-style-type: none"> <li>• Dialogue</li> <li>• Simplicity is a strength</li> <li>• Leadership</li> <li>• Green cross and deviations</li> <li>• Green Cross as a method</li> <li>• Viewing adverse events differently</li> <li>• Patient safety and patient safety culture</li> <li>• Practical aspects to working with GC</li> <li>• Openness and trust</li> <li>• Awareness, responsibility and commitment</li> </ul>	<ul style="list-style-type: none"> <li>• The Green Cross method promotes trust and dialogue</li> <li>• The simplicity of the Green Cross method is a strength</li> <li>• The Green cross method provides a systematic framework for patient safety work</li> <li>• The patient safety mindset is developed using the Green Cross method</li> <li>• Leadership can use the Green Cross method to create awareness and engagement in patient safety issues</li> </ul>	<ul style="list-style-type: none"> <li>• Attitude towards patient safety</li> <li>• Knowledge, learning</li> <li>• Leadership</li> <li>• Patient perspective</li> <li>• Practical aspects to working with GC</li> <li>• Structure</li> <li>• Possibilities for development</li> <li>• Openness, trust, dialogue</li> <li>• Across borders, between profession</li> </ul>

TABLE 2 Description of participants

Discipline/position	n = 32
Group interviews with staff members (different professional background such as nurse, assistant nurse and physician)	26
Individual interviews with operations or medical managers (different professional background such as physician, nurse and medical secretary)	6
Age	
20–40	14
41–60	16
61–70	2
Clinical experience (years)	
0–5 years	12
6–10 years	3
11–20 years	7
21–30 years	5
>30 years	5
Experience of working with the Green Cross (years)	
0–1	10
2–3	9
>4	13

analysis process was recorded to understand the development from initial codes to the collapsed themes for increased confirmability. Furthermore, two researchers conducted the group interviews, notes were made, and each interview was followed up with a short reflection. The intention was to gain an understanding of one's own perspectives and reflections that could have influenced the interviews (Ruby, 1980).

## 5 | RESULTS

We recruited participants for six group interviews (with a total of 26 participants) and six individual interviews. The groups were made up of healthcare workers from the same unit. We conducted four group interviews with nurses and assistant nurses ( $n = 19$ ) and two group interviews with physicians ( $n = 7$ ). The individual interviews were with people in a managerial position (operational and medical) and professional backgrounds such as physician, nurse or medical secretary. The majority of participants were nurses with more than four years of experience with the GC method. About half of the participants had over ten years of clinical experience. Demographic data are presented in Table 2.

The GC method was highly associated with patient safety. Often, the first thing that came to mind when asked about the GC method was patient safety, which was considered important. Using the GC method had increased awareness of patient safety among participants. Staff shortages were not automatically described as a patient safety issue, even though experienced as demanding. In this sense, the GC method was appreciated as a tool that positively influenced the working environment. What to include in the GC method was not unambiguous. Some participants emphasised that all medical

treatment involves risks, which makes it difficult to separate avoidable and unavoidable complications. Participants saw this method of highlighting patient safety issues as a natural part of their work that provided an opportunity to discuss these issues and facilitated a continuous focus on improvements. The method also engaged a larger proportion of co-workers. Regularly discussing risk could also be seen as looking for mistakes. Handling injuries that occurred in other units was seen as problematic. Users of the GC method did not emphasise any particular steps in the method as being more important than the others; thus, no core elements were identified. Instead, they emphasised the core of the method as having the opportunity to be engaged in patient safety work in a systematic way.

Based on the participants' descriptions of the GC method, the information from all interviews was condensed into five themes as follows, which reflects the participants key experiences of the method.

### 5.1 | The simplicity of the Green Cross method is a strength

Many participants made comments relating to the simplicity of the GC method, and how it provides a straightforward way to focus on patient safety. Using the method was described as easy. Participants in one of the group interviews commented that it was not demanding for them as users as: "we only have to state what has happened" (F1:2). The method provided them with "a forum to discuss things, it is on the agenda" (F1:1), and this facilitated bringing up risks or PAEs.

Several aspects of the method were described as influencing the feeling of simplicity. Assessments of the seriousness of incidents were made in direct connection to discussions of each specific event, and the cross was immediately filled in with the appropriate colour

code. The simplicity in colour-coding a visual cross that was always visible straight away was much appreciated, as it was not time-consuming. Also, the colour-coding made it easy to get a snapshot of the current situation as well as an understanding of the situation over longer periods *"the cross and the colours signal that something has happened"* (E2). The cross was usually placed on a wall in a room where staff meetings are held, facilitating a quick overview of the situation; *"I think it's pretty clear and good... yes, it's there all the time, and you can cast an eye over it every day and..."* (F6:1).

Discussing patient safety issues on a daily basis was perceived as increasing awareness and as enabling units to identify risks regularly. The consistency of scheduled meetings and their format were described as facilitating the actual recording of events. In the group interviews, participants expressed that prior to using the GC method they had observed things that they considered risks but had not acted on them *"because before you maybe observed things but then a lot disappeared in the process afterwards"* (F1:4).

## 5.2 | The Green Cross method provides a systematic framework for patient safety work

The GC method has seven distinct steps. They were not all highlighted by participants, but participants expressed an appreciation of the method's systematic approach to patient safety issues. It includes regular meetings with a distinct focus on patient safety. These were often part of an early morning briefing, but the flexibility of the method made it possible to have these meetings when it fitted into the specific needs of each unit. Having regular opportunities to apply the GC method was described as necessary *"... it is kind of a compelling moment that comes every day and then I think we catch more"* (F5:2). Longer times between meetings were described as leading to decreased reporting *"...I compared it to outpatient care where they only meet once a week - I suspect some incidences are actually forgotten"* (E:1).

Some aspects of the GC method were discussed in all of the group interviews, such as the regular meetings with a designated leader. Participants described the leader as contributing to an organised opportunity for them to mention any patient safety issues. The leader also ensured that the description of events was followed up with a discussion and structured assessment, the colour-coding of each incident on the cross, and the filling out of a report form. Participants expressed excellent knowledge of the hospital's web-based incident-reporting system (MedControl PRO; Munkaby Systems AB, Malmö, Sweden), which was used in addition to the GC method or as a replacement, depending on the seriousness of the incident.

From a managerial point of view, some aspects related to the systematic way of working with patient safety issues were highlighted. The regular discussion of patient safety issues provided them with an updated picture of the situation and an understanding that was not isolated to single incidents. The GC method was described as an opportunity to initiate quality improvements on a daily basis *"... it brings up issues with the team or we work together with other clinics... there's often a kickoff - it's a reminder that we have problems here"* (E4).

## 5.3 | The Green Cross method promotes trust and dialogue

A third theme concerned aspects of trust and dialogue. Working with the GC method enabled participants to focus on patient safety and not on people getting blamed. In one of the groups, the participants mentioned that when they talked about incidents they just say *"It went wrong ... we very rarely say that it's any particular person who has done something wrong, I think"* (F6:4). The GC method's approach, which involves the sharing of mistakes and the avoidance of blame, was a prerequisite for being able to discuss incidents and how to prevent reiterations; *"I've always been very careful not to use incident reports to point out individuals because if we write incident reports to point out a specific person, it means that we can't talk to each other... we can't communicate"* (E:5).

Discussing incidents provided participants with an understanding of different perspectives and ways of thinking. At the same time, assessing the degree of seriousness was not always straightforward and the opportunity to talk about incidents was valued. Healthcare workers from different professions could assess the same incident differently, but this could also occur within a profession. *"I think the most valuable thing is... the identification that it really gets done and that the assessment of severity gets done because it leads to a good dialogue and you hear different viewpoints"* (E2). Open, honest dialogue was necessary for relevant information to be reported and this could even facilitate learning; *"... lots of people say that there are always green crosses wherever they go and we often have yellow... but I think that we are just good at discussing things."* (F1:1). Participants stated that a cross that was totally green would signal a lack of trust in each other, as it would indicate an inability to share incidents with each other. Another reflection was that incident reporting was sometimes used to draw negative attention to a specific person. This was perceived as avoidance and was seen where dialogue was lacking *"...I think it's strange when you only communicate using incident reports... instead of a discussion"* (F5:5).

## 5.4 | The patient safety mindset is developed using the Green Cross method

The group interviews provided different examples of how participants' mindsets regarding patient safety issues developed. This could be seen in how patient safety issues were given more attention, while at the same time, the GC method did not reduce the need for staff to assess the degree of seriousness of incidents or make decisions regarding what to include; *"I find it hard to know what should be discussed... if we brought up everything that happens each day, there wouldn't be any green squares"* (F2:2).

Discussing these issues had increased participants' understanding of patient safety risks and developing knowledge from a multidisciplinary perspective was desirable, but this could be difficult to achieve in practice due to limited opportunities for mutual meetings.



They mentioned discussing whether the GC method should be applied to certain incidents as well as how to interpret the seriousness of incidents. Identifying a patient safety risk could sometimes be described as positive, as this process offered an opportunity to evaluate the specific circumstances of an incident and they could learn from this; "... and a lot has been discussed... if someone has fallen... that kind of thing you carry with you... and if you get to discuss it with everyone... you get kind of a safer thinking as well" (F2:2).

A shared understanding could be obtained and attention could be drawn to incidents where there was disagreement. Physicians also pointed out the difficulty in differentiating between an adverse event and something that was assessed as a potential risk related to a planned procedure considered to be necessary; "... and you know very well that things can go wrong, so where is the border here?" (F4:1). Some nurses and physicians expressed uncertainty about the usefulness of the GC method from a physician's perspective as they made a connection between the method and work focusing on the ward; "... well among physicians, I don't think so much happens with it... some things come to light... but then there's probably more things on the wards I think..." (F5:1). From a physician's perspective and due to the nature of their work, seeing patients at different units limited the practicality of using the GC method at their own units. Patient safety issues could occur during consultations at other units, but they only participated in GC meetings with their colleagues at their unit.

Participants thought that the GC method facilitated awareness and broadened their understanding of patient safety based on increased understanding and developing a mindset where patient safety questions were valued; "It's because it's not there to place blame on anyone, it's there to help us improve." (F3:2), "... it's such a natural part of work I find .... It's a way of thinking." (F3:1). At the same time, different aspects of patient safety issues were highlighted. Nurses and nurse assistants stated that patient safety issues provided examples from their close environment that related to their daily work; "postoperative infections, surgical wounds that have been sitting too long that become infected and result in an extended length of care. And as you said with catheters if you don't wash them properly, then the risk is that you get a urinary tract infection.. so these are complications of care that extend the length of care." (F6:4). Physicians described other aspects of patient safety such as lack of beds or staff and problems with technical equipment; "... I think key issues that are valuable to discuss regarding the GC method are organizational issues and definitely issues to do with technical equipment." (F4:1).

### 5.5 | Leadership can use the Green Cross method to create awareness and engagement in patient safety issues

Participants said that the GC method created structure, but it needed support by distinct leadership. Someone in a managerial position needed to initiate the work, find time for the daily briefings and establish a structure to make the time put aside for the GC

method efficient; "... it depends a lot on who leads the meeting... to lead at the right level and ask 'what do you think we should have done'... 'is this a general problem'." (F5: 5). Initially, participants saw a need to motivate why it was important to spend time on the GC method. Participating in discussions related to learning about problems from a staff perspective as well as using the opportunity to develop a structure to engage staff; "... my aim is also to get to know my unit and to try to find a pattern in what happens... it is important that I'm present " (E1). Once an efficient structure has been established, daily briefings could, on occasion, be led by a different person. Managers pointed out the need to remind staff of long-term goals and sometimes to restart. Participants expressed an awareness of the GC method as a tool to facilitate their work. Newly hired healthcare workers described a high level of patient safety awareness at their units. They had learned about the GC method through taking part in meetings, observing and asking their colleagues questions.

An explicit structure was described as important as this stressed the significance of patient safety issues, but there was a difference in what was described as the GC method. Feedback on general levels was mostly described as lacking when staff described their work with the GC method; "... we receive very little feedback on what is marked yellow or on what happened..." (F4:2). Managers described different ways of providing feedback. This could include regularly presenting information in writing or orally. Both managers and healthcare workers mentioned how feedback could be provided in relation to the incident-reporting system MedControl Pro; "... NN writes in all the written weekly reports both if we get feedback and when we write incident reports." (F3:5). Where no weekly reports were used, feedback was mostly done on an individual level; "... it's personal so just that person will know... the one who wrote the incident report... it is rare for anyone to stand up and say 'this was the answer'." (F5:4). Identified patient safety issues were used to initiate discussions, which were then used to initiate quality improvement.

## 6 | DISCUSSION

The aim of this study was to describe users' experiences of the GC method when working with patient safety, and their view on the core elements of the method.

The five themes we identified suggest that users of the GC method, to some degree, shared common experiences of what is central to the method regardless of their specialty. Study participants did not identify specific parts of the method as core elements and were actually not always fully aware of the formal structure built up by its different parts. From a user's perspective, the most important part of using the GC method seemed to be that the method created an opportunity for discussing patient safety questions as a result of the daily meetings. Having a systematic approach was understood as enabling patient safety awareness and seen as essential for patient safety work. In this sense, the GC method contributed to the development of patient safety culture. Users of the GC method could together develop an understanding of how things worked and how

staff and managers acted, thus obtaining a picture of shared values, beliefs and behavioural norms (Danielsson et al., 2018; DiCuccio, 2015; Reason, 1997, pp 191–222; Singer, Gaba, et al., 2009; Singer, Lin, et al., 2009; Öhrn, 2012). These are all aspects of building an organisational culture for patient safety, which is essential for maintaining continuous work with patient safety issues.

There are similarities in what users of the GC method described, illustrated in our five themes, and what previous research points out as valuable for patient safety culture. Study participants emphasised the necessity of having daily meetings, with regular opportunities to raise concerns regarding risks or PAEs. According to Hutchinsons, a high reporting rate indicates a safer organisation (Hutchinson et al., 2009) and research into so-called safety briefings similarly emphasises the importance of short daily meetings. Safety briefings capture issues presented in the previous 24 hours, in addition to providing an opportunity to discuss anticipated issues and appraise one's own actions as well (Ryan et al., 2019). Providing the opportunity for frequent reporting is thus an important aspect of the GC method, which was emphasised in the theme *a systematic framework for patient safety work*. This is closely related to how participants highlighted aspects of the GC method such as the visualisation or assessment of the seriousness of incidents directly. Overall, working with the GC method was not considered to be time-consuming and the *simplicity of the GC method* was described as a strength. Time-consuming systems are described as barriers to reporting (Polisena et al., 2015), whereas effective reporting systems make it possible to report incidents using your own words—as with the GC method (Burkoski, 2007).

Aspects that can influence reporting negatively are lack of organisational support or fear of blame (Anderson et al., 2013; Health Quality Ontario, 2017). Anonymous reporting is suggested to avoid fear of blame. The study participants, however, described how they actively tried to avoid placing blame and instead worked on creating a situation where it was acceptable to mention one's own as well as others' involvement in risks and PAEs. The GC method stimulates discussions and the development of understanding as exemplified in the theme *the GC method promotes trust and dialogue*. Integration with clinical work is described to be effective for augmenting interaction and communication (Stavropoulou et al., 2015). Reason (1997, pp 191–222) describes this as a reporting culture where participants are prepared to share their experience of risks and PAEs. A reporting culture is also associated with, for example, simple reporting and avoiding placing blame on the person who reports an incident.

The study participants expressed an appreciation of having a designated leader. The leader can direct discussions towards patient safety issues, initiate quality improvements and provide feedback. A leader reinforcing the importance of patient safety issues can gain an understanding of safety issues at the single unit, guide discussion and elevate questions to an organisational level. This leader is the connection between the single unit and the organisation supporting the development of an informed culture (Reason, 1997, p. 195). This is illustrated in the theme *Leadership can use the GC method to create awareness and engagement in patient safety issues*.

Previous research has pointed to discrepancies in, for example, the perception of patient safety when it comes to different disciplines, work areas and position (Danielsson et al., 2018; Richter et al., 2015; Singer, Gaba, et al., 2009; Singer, Lin, et al., 2009). The focus of this study was the use of the GC as a method, and not on the perception of patient safety. The GC method seems to *develop the patient safety mindset* as described in one theme. This mindset related to perspective. Managers expressed an understanding of the GC method as something that could be used to contribute to patient safety on an organisational level, whereas staff very much focused on their closest work environment. The GC method is primarily recognised as a method to identify risks and PAEs in relation to a specified unit, though the method itself aims to assemble information on an organisational level as well. Problematic instances of patient safety issues, which are possibly less easy to detect with the current use of the GC method, were mentioned by participants, in particular physicians as they see patients at different units. Previous research has indicated a difference between nurses and physicians in their reporting of adverse events (Danielsson et al., 2018; Singer, Gaba, et al., 2009; Singer, Lin, et al., 2009). In this study, participants expressed an appreciation of the opportunity to focus on patient safety issues using a method that was not based on work area or profession. However, the nature of work for physicians was thought to limit the use of the GC method. This included both working across the hospital as well as drawing a line between calculated risks and adverse events. Whether this is a description of different views of patient safety or related to the method in itself is not evident from this study. A recent study that compares units that implemented the GC method (GC-units) with those that did not (non-GC-units), described a discrepancy between physicians and nurses. Nurses working in GC-units reported a higher risk of PAEs than nurses in non-GC-units. This difference was not seen among physicians. Overall, there was a difference between GC-units and non-GC-units in how the risks of PAEs were reported, but not in reporting PAEs (Källman et al., 2020).

## 6.1 | Limitations

The interpretation of the GC method is based on the available data from units describing themselves as users of the method. The inclusion of units with less experience could have provided additional perspectives. We decided to condense the themes from individual interviews and from groups to present a broad picture. In doing this, we could describe information from different perspectives, as with the perception of feedback. The research team works at the hospital where the GC method was developed; however, they have no connection with its development and no previous clinical experience of the GC method. The intention was to limit the influence of previous knowledge during analysis, recognising this could also restrict our ability during interviews to follow up on information presented.



## 7 | CONCLUSION

Users of the GC method did not emphasise certain steps of the method as being more important than others; thus, no core elements were identified. Instead, the core was perceived as having the opportunity to be engaged in patient safety work in a systematic way. This was underlined by all participants, regardless of their profession or work area.

Study participants stressed the use of visualisation, the simplicity of reporting, and the possibility to learn by discussing patient safety issues in daily meetings. The need for endurance and structure to develop a permitting climate was described. A limited perspective of all steps of the method appeared, most apparently related to actions taken after the daily meeting.

Working in a systematic way was described as the core of patient safety, and the GC method was described as a supportive tool for this.

### 7.1 | Relevance to clinical practice

Knowledge of user's experience of the Green Cross method provides information of the current practice together with what is considered the strengths of the method by users represented both of healthcare workers as well as persons in managerial positions. This is helpful for those interested in the method. The described practice also points to underuse of certain steps in the method. Awareness of the difference between actual and intended practice can further the development of the method and influence how it is introduced.

### CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

### AUTHOR CONTRIBUTION

Individual interviews: Stina Isaksson and Marie Rusner. All group interviews; Anneli Schwarz with Stina Isaksson as an observer. Analysis: One initial individual interview each by the corresponding author, as well as the second and last author. The remaining interviews: Anneli Schwarz. Developing first draft of the article: Anneli Schwarz. Study design; the final data analysis; manuscript finalization; reading and approval of the final manuscript: Anneli Schwarz, Stina Isaksson, Ulrika Källman, Marie Rusner.

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## SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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