

Organizational *Qui-Vive*: An Intermediate Approach to Structuring the Link Between Attention and Action

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Abstract. Since the pioneering work of Simon, several avenues of research have investigated the attention structuring processes in organizations. While the research based directly on Simon's theories focused on the role of management tools in structuring attention, more recent research based on Weick's work has focused on the role of the cognitive processes of the actors rather than tools, emphasizing a particular pattern of action, namely mindfulness. In this study, we re-examine the role of tools in the structuring of attention while recognizing the empowerment of the actors as described by Weick. In doing so, unlike the majority of current research, which focuses on mindfulness, we consider the existence of patterns of actions that are different from mindfulness. An empirical study in hospitals demonstrated a particular pattern of action that we call Organizational *Qui-Vive*. This pattern consists of an action script, tools that support the script, and processes that channel the attention of the actors. Organizational *Qui-Vive* is similar in structure to Mindfulness but differs in several respects. It alerts to a specified danger, it brings consciousness into the action using tools prepared in advance and gives meaning to the action through mutual understanding. We compare the two patterns linking attention and action to point out the different structuring processes that respond to different situations. Organizational *Qui-Vive* is emerging as an intermediate structuring approach that is heavily influenced by the importance of tools, but which nevertheless empowers the actors.

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Since the pioneering work of Simon (1983), several researchers have focused on attention as a core principle of organization and developed theoretical frameworks to express this view (Gavetti, Levinthal, & Ocasio, 2007). Three avenues of research have examined how attention is structured in organizations (Ocasio, 1997). The first endeavored to show how attention could be allocated in the organization (Cyert, 1992); the second how certain action scripts develop a particular attention allocation pattern that has been described as Mindfulness (Weick & Sutcliffe, 2003); the third, known as ABV (Attention Based View of the firm), has focused specifically on the role of attention in organizations (Ocasio, 1997).

The pattern described by Weick, which is a loose form of coordination with little emphasis on tools (Weick, 1976; Weick & Roberts, 1993), has gradually been recognized in the literature. However, the focus on mindfulness raises the question of whether there are other patterns structuring the link between attention and action in which tools could play a role. In this paper, we re-examine the role of tools in the study of patterns of coordination. In doing so we study attention structuring patterns other than mindfulness, and we explore the possibility of

structuring and distributing different varieties of attention in different situations (Ocasio, 2011).

Through our participation in a program to improve the quality of hospital care in preventing and treating pressure ulcers, we observed a particular approach to structuring attention which, while still empowering the front-line actors, made it possible to structure the link between attention and action. Among the hospitals studied, the best-performing ones had developed a form of collective coordination of attention and action, expressed as a particular pattern of action. This attention-action pattern combined an acute awareness of the issue of pressure ulcers, modes of action promoting fast response and special interaction arrangements among agents. This form of coordination, supported by the managers, was an illustration of the ability of actors to induce specific types of activity coordination by structuring attention and action. This special way of structuring attention and action - which we call Organizational *Qui Vive* - differs from other models because of the way tools are used to emphasize attention in the execution of the action. It also alerts a network of sentinels for a previously identified hazard and makes sense of the action in the form of a special type of coordination.

In the first section, we review the three main schools of thought that focus on attention as a powerful factor in guiding the activities in organizations. The next section presents our scope and methodology. In the results section, we first propose a structured interpretation of the attentional processes that have been developed by healthcare teams, and we then describe the functions performed by Organizational *Qui-Vive*. Finally, in the discussion, we show that Organizational *Qui-Vive* corresponds to an intermediate approach to structuring the link between attention and action.

ATTENTION AND ACTION STRUCTURING MECHANISMS

The role of attention in organizations has been conceptualized differently depending on the period and the schools of thought. We will review the three interpretations that have had the most influence on this issue in management science, namely the structural approach (Simon, 1983; Cyert, 1992), the cognitive approach (Weick & Roberts, 1993) and the approach developed by Ocasio (1997).

THE STRUCTURAL APPROACH: ALLOCATING ATTENTION IN ORGANIZATIONS

Simon (1983) and Cyert (1992) attributed two roles to attention: the role of guiding action by indicating what was important for the organization, and the role of focusing on certain problems and the corresponding solutions. Organizational allocation of attention mechanisms was highlighted as a way of structuring attention. As stated by Simon (1983), rationality is not limited by the lack of information, but rather information overload is the problem. The attention of the actors becomes a scarce resource that must be channeled. To overcome the limitations of human rationality, it is possible to partition and prioritize problems and entrust the resolution to different parts of the organization. The role of the decision maker is then to allocate the questions, and the attention given to them, to various organizational actors (or groups of actors) through the structuring of the firm. With this model, Simon emphasizes both the importance of non-computational mechanisms, which are more in the nature of the social structuring

of attention, and the manager's ability to influence the decision-making mechanisms by structuring the allocation of these mechanisms in the firm.

Cyert and March (1992) went further in the analysis of the structuring of attention by developing the concepts of perspective and sequential attention. According to them, the allocation of attentional processes in the organization helps identify clear perspectives assigned to different parts of the organization. Problem solving involves a series of partial solutions developed by the different parts. This approach has the advantage of creating specializations, focusing the effort and providing routines and procedures that reinforce the attention in the execution. This conception of the structuring of attention in the firm highlights the role of repertoires, in other words catalogues of tools to help recognize specific signals and/or problem solving tools. These repertoires help channel perceptions or actions without fully imposing the action, since it is always possible to choose among the tools in the repertoire. Repertoires can also constitute an organizational memory allowing the firm to capitalize on experience and plan for the future. The key issues here are the concept of repertoires and the ability to build enduring toolsets to support attentional mechanisms.

THE COGNITIVE APPROACH: LINKING ATTENTION AND ACTION

Another line of research initiated by Weick focused on the link between attention and action, and in particular the collective cognitive mechanisms of sensemaking that go beyond individual rationality (Weick & Roberts, 1993). This school of thought differs from the first because it focuses on the cognitive processes of attention allocation, rather than tool-based processes. This view (Weick, 2006; Weick & Sutcliffe, 2007) describes processes of collective representation of action (sensemaking), structuring of collective action based on interpersonal interactions (enacting) and forms of behavioral dependence that are built by these collective action patterns (mindfulness). These processes create action patterns that can be distinguished not only by the individual attitudes they encourage, but by the way individuals act together. The collective behavior that is thus encouraged cannot be contained in the action of a single individual. It is a result of the interrelationships between actors that channel attention into the action (Weick & Roberts, 1993; Ocasio, 1997).

This view reintroduces conscious thought into the action, not just as a foreshadowing of the action in its consequentialist form, but as a cognitive process of consciousness in the action. Karl Weick describes a special mode of linking attention and action he called Mindfulness (Weick & Sutcliffe, 2003; Weick, 2006; Weick & Sutcliffe, 2007). This pattern can be described as the preoccupation with failure, reluctance to simplify, sensitivity to operations, commitment to resilience and deference to expertise. These different attitudes establish a special link between attention and action that has been studied by cognitive science (Chatzisarantis & Hagger, 2007).

Weick's view of attention in action, despite its many qualities, is not however, without its problems, especially because it basically ignores the ability of tools to structure attention (Brabet 2005; Lorino, 2005a). Structuring is almost exclusively expressed through the concept of sensemaking, which involves interpreting the structuring processes as the memory of the action rather than as a presupposition of the action. This is a frequent criticism of this model of the link between attention and action, which is based essentially on the constitution of attentive behaviors and excludes conventional management tools (Eisenberg, 2006). The key issues here are three major themes: the role of retrospective processes of sensemaking and engagement in action, looking at action based on interpretation frameworks, and finally the use of action scripts for understanding the collective attention processes. We also note the importance of studying action scripts, which we define as a set of activities linked by a common goal.

THE ACTIVITY-BASED APPROACH: BUILDING ATTENTIONAL PROCESSES

Finally the two previous theoretical frameworks – the structural approach and the cognitive approach – were combined by Ocasio (1997) who studied the primary mechanisms of development of attention in managers and in the context of strategic decision making. A few years later, Ocasio (2011) continued his reflection on attention, extending it to different kinds of activities. Based on recent developments in neuroscience, he classified three varieties of attention. The first type – *attentional perspective* – describes the ability of organizations to focus on a perspective. This is attention that can be allocated to certain previously identified issues or situations or simply determined by the social, political or economic context. This type of attention is produced by guiding the awareness and efforts of actors toward certain questions or issues. This can be done by clearly stating goals, prioritizing a project and expressing logics of action or special interests. This is often the result of top-down processes.

The second type of attention, which Ocasio calls *attentional selection*, describes the ability of organizations to select the issues and solutions in order to focus their efforts on the execution. Attentional selection results from the choices made to address certain issues and use certain solutions rather than others. It is associated with both top-down and bottom-up mechanisms that are influenced by attentional carriers.

Finally, Ocasio introduces a third variety of attention, *attentional engagement*, which describes the ability to engage the attention on new signals that will produce changes in sensemaking and may be a source of innovation. This variety of attention corresponds to cognitive efforts that must be made to solve problems, analyze situations and make sense of the activity. It generates variations in patterns of thinking, decision making and interpretation of situations and is often the result of bottom-up processes that start from the performance of the concrete activity and then make sense of it.

Ocasio classifies these varieties of attention to clarify the different theories of attention in organizations. Although originally largely inspired by strategic decision making, this approach addresses the issue of attention much more broadly. In particular, it shows a new interest in the bottom-up relations that structure attention through processes of interpretation of activities at all levels of the organization.

Another advantage of the approach developed by Ocasio is that it focuses on patterns of attention (i.e., special combinations of varieties of attention) and connects these patterns to factors such as the success of the organization and/or its ability to innovate and change. Ocasio (2011) has also developed several propositions to describe the reciprocal influences among the different varieties of attention. Thus, for Ocasio, *attentional engagement* facilitates variations in perspectives based on bottom-up relationships, while attentional perspective focuses efforts and frees up resources to produce variations in forms of engagement. Ultimately, this view reinstates learning as an attention-structuring process. We will use this framework to analyze the Organizational *Qui-Vive* we encountered in hospital wards.

The typology of attention proposed by Ocasio describes the different patterns that lead to reliable behaviors in situations characterized by uncertainty, and in particular mindfulness as described by Weick (2006). This model of coordination predominantly involves *attentional engagement* and facilitates the detection and performance processes that bring consciousness into the action. However, it rarely involves *attentional perspective*, which guides actors to specific types of actions in a top-down manner. It also rarely involves channeling attention by selection. We use the chart of attentional processes to compare Organizational *Qui-Vive* and Mindfulness and show how these two patterns linking attention and action differ from one another.

SCOPE AND METHOD

The study on which this research is based is part of a skills and good practices development program involving the management of pressure ulcers in hospitals. This program, supported by a French regional health authority, initially involved six French public and private hospitals¹ located in the region of Brittany.

DIFFICULTIES IN TREATING PRESSURE ULCERS

The frail elderly in Critical Care and Rehabilitation Units have a very high risk of forming pressure ulcers, in other words, necrotic ulcers on pressure points between the body and the mattress. In common parlance the term bedsore is often used as a synonym. The principles of prevention and treatment are well known and taken singly are relatively simple: patients must be frequently mobilized so as not to keep the pressure of the body in the same place; malnutrition and dehydration should be avoided and personal hygiene maintained; therapeutic devices, in particular pressure redistribution mattresses, have proved effective (European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel, 2009). However, many hospital teams experience difficulties (Gunningberg & Stotts, 2008), because pressure ulcer management involves coordinating teams and especially paying constant attention to this often overlooked risk. The ability to structure the activity is one of the characteristics of teams that succeed in effectively managing pressure ulcers (Orvain, 2013).

INDUCTIVE ANALYSIS OF CARE ACTIVITIES

We chose to start with the description of activities as a prerequisite for understanding the work structures. This is in line with research that considers practices as central to social organization (Feldman & Orlikowski, 2011). Thus attention is seen not as a resource that is given, but as a resource that is built by interaction and structuring processes (Giddens, 1979). The action of an individual is integrated into a collective pattern of action, which allows other members of the group to recognize the action and acknowledge it by an appropriate action in return (Goffman, 1983; Goffman, 1991). In order to collect the data for analysis, we used an inductive grounded theory method (Strauss & Corbin, 1990; Charmaz, 2006).

DATA COLLECTION IN THREE SUCCESSFUL HOSPITALS

The study focuses on three of the six hospitals involved in the regional study on pressure ulcer management practices. These three hospitals (H1, H2 and H3) were selected because their teams are known for their success in managing pressure ulcers. In these hospitals we studied in detail the link between attention and action by interviewing hospital employees, observing the work in the critical care and rehabilitation units, and participating in working meetings.

As shown in Table 1, which summarizes all the sources of data collected in this study, this article is based in particular on the 12 interviews² with employees from hospitals H1, H2 and H3. The 12 interviewees represent the different professions involved in the management of pressure ulcers. Our sample base was selected to ensure that within each hospital, representatives of different professions were interviewed (Table 1 below). Open-ended questions were asked during the interviews, so the participants could express themselves freely, while ensuring that the following topics were addressed: concrete care practices, use of tools (informal rules, management tools, equipment), the nature of the

1. The author of the article participated for three years in the program, which was concluded with a symposium attended by over a hundred participants from all institutions in the health territory on February 13, 2014.

2. For the entire program, including the original six hospitals, 25 interviews were conducted, but only those involving hospitals H1, H2 and H3 are used because they correspond to the phenomenon observed.

relationships in the teams, symbolic meanings and emotions. The interviews lasted between 90 and 120 minutes and were all recorded and transcribed. They were performed between 2009 and 2010. During the interviews, the respondents often used the term "bedsore" as a synonym for "pressure ulcer." When this term was used in the interviews, it was kept in the written transcript, but in the rest of the article the term "pressure ulcer" was preferred.

The 12 interviews were completed both by observations of care practices – the author accompanied a doctor and a nurse during a visit of the ward at hospital H1 and accompanied the nurse assistants of hospital H2 on one of their rounds – and discussions with all the teams. The discussions took place during a staff meeting (Hospital H1) and more informally in the nurses' lounge (hospitals H1, H2 and H3).

Finally, the author of this article also participated in three working meetings organized as part of the regional program where participants shared information on risk identification methods, prevention and treatment practices and the equipment used. The author did not participate in the theme-based meetings organized as part of the research program, but, at plenary meetings, he was able to report on the initial results of the study and get feedback from the participants.

Table 1. Interviews, observations and discussions at hospitals H1, H2 and H3

	Hospital H1	Hospital H2	Hospital H3
People interviewed			
Nurse assistants	1		1
Care managers	1	1	
Dieticians			1
Directors		1	
Nurses	1		1
Doctors	1	1	1
Pharmacists			1
Total interviews	4	3	5
Observations	1	1	
Discussions	2	1	1
Regional Meetings			
		3	

The teams raised no objections to the interviews and observations because of the medical training of the author. This enabled the researcher to be accepted and quickly immerse himself in the investigation, but professional recognition and empathy may be potential factors of bias³.

Memos were written after the discussions and meetings to encourage the emergence of analytical themes. One of these memos mentioned attention as an important mechanism. This led us to search for theoretical data on attention mechanisms to support the analysis.

DATA ANALYSIS

The data were analyzed and presented using the method proposed by Gioia, to inductively generate a new way of understanding the empirical facts (Gioia, Corley, & Hamilton, 2013). We began with an empirical situation that we observed several times and that we interpret (Langley & Abdallah, 2011). The interviews were analyzed in three phases.

3. The people quoted all signed consent forms for participating in the study. All interviewees are quoted except two: the director of hospital H2 and the manager of hospital H1. In both cases the statements were not first hand: in the first case the remarks seemed to be a duplication of those of the doctor, and in the second case it was a person who had just started in the position and who explicitly repeated the statements of the other people interviewed. These two interviews are used in the analysis, but provide no new material that would make them worth repeating verbatim.

First, the primary phenomena, which are described by the interviews (primary results corresponding to types of action) were coded by the author using NVivo software (version 8). This consisted of constantly going back and forth between the codes and all the empirical data to specify the data structure, while remaining as close as possible to the survey data without inferring any specific meaning at first. Recurring actions carried out by the three hospitals studied were grouped into 15 categories which constitute the primary coding of the interviews (Tables A1 to A5 in the Appendix⁴).

Second, the primary coding elements were grouped by the author, so as to constitute a summary in the form of sub-themes (secondary results corresponding to the development of an action script). The 15 categories previously identified were reorganized into five common sub-themes that describe a common action script. A chart showing the structure of the data and verifying the constant link between the field data and the sub-themes is provided in the results section (Figure 1). The tools associated with these sub-themes were also identified at this point in the analysis and their role in the implementation of the action script was defined.

Third, the action script and corresponding tools were compared with the chosen theoretical framework to analyze the attentional processes. Again, we use a flowchart to demonstrate the relationship between the action script, the role of the tools and the attentional processes (Figure 2). The memos written during the study mobilized the symbolic representations of the pattern studied during specific situations. Some of the memos are reproduced as narratives in the body of the article to describe these situations where the pattern is expressed.

TERMINOLOGY

In this study we will use various terms that we need to define. We have already defined the term "action script" as a set of different actions combined to achieve a given objective and that are observed repeatedly. In our study, the action script consists of the actions developed by the care team to prevent and treat pressure ulcers. The associated tools include repertoires of signs (assessment forms for example), action principles (decision-making rules, action logic diagrams, procedures) and toolsets of equipment (mainly therapeutic devices). These tools support and equip the action script. Finally, the combination of attentional processes and an action script create a particular pattern linking attention and action.

ORGANIZATIONAL QUI-VIVE

We call the action pattern that we have identified in the study Organizational *Qui-Vive*, which we will describe below. The term *Qui-Vive*⁵, which was spontaneously used by several of the interviewees to describe their activities, comprises various characteristics. It emphasizes the notion of collective alert, it includes the notion of preparedness and it promotes organizational cohesion through a particular form of engagement. And by using the adjective "Organizational" we emphasize the collective nature of this pattern linking attention and action. We will outline these characteristics by describing the action script that produces the pattern, then by describing the tools that support the script and finally by the attentional processes that accompany the script.

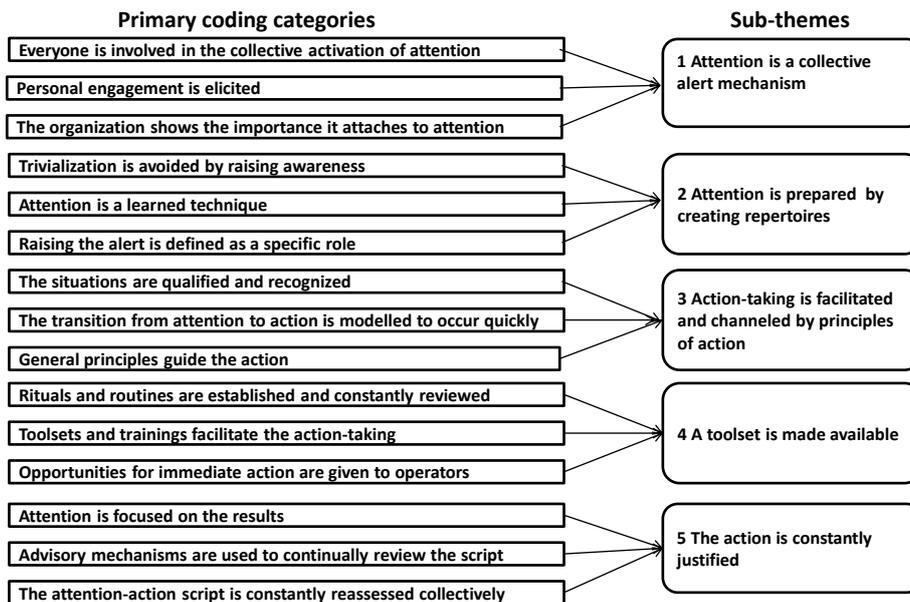
4. French narratives have been translated into English by a professional translator.

5. We kept the French term *Qui-Vive* because there is no real equivalent in English. *Qui-Vive* can be translated as "to be on alert," but this term does not fully describe the specific nature of the phenomenon observed.

THE ACTION SCRIPT

As shown in Figure 1, the primary coding, and its reorganization during the secondary coding, helped identify the action script, which includes five elements: a collective alerting process; collective preparation of attention through the creation of risk recognition repertoires; action-taking channeling by common action principles; the provision of a toolset; and finally the ability to update and make sense of the action script. The coding details are presented in Appendices A1 to A5.

Figure 1. Data structure describing the action script



The five main themes that make up the architecture of the action script are described in more detail below and are then shown in the flowchart of the pattern (Figure 2).

A collective alert mechanism

In the three hospitals studied, we observed that managers emphasize the importance of collective management of pressure ulcers. The way they place their wards on alert, however, varies from one hospital to another. In hospital H1, the doctor has made the issue of pressure ulcers a personal commitment that he dramatizes and brings to center stage in the name of "good medicine." The doctor at hospital H2 however, draws attention to the major public health issues as defined by the Ministry of Health. Finally, in hospital H3, attention to pressure ulcers is a positioning strategy of the hospital in its health territory. Table A1 in the Appendix reflects the collective construction of attention. The doctor at hospital H2 described this process in his ward: "There were lots of meetings with nurses, this led to the first dressing record form, we evaluated the type of bedsore and [noted] the dressing we used. A procedure was developed for the prevention of bedsores throughout the hospital. A poster was written and put up in the wards. Training sessions were held."

Risk recognition repertoires

In order to effectively support the collective alert mechanism, pressure ulcer risk recognition repertoires are made available to team members, in particular nurse assistants who are on the front lines. The teams at the three hospitals use risk assessment forms and cards with photographs to classify the severity of pressure ulcers and indicate the possible treatments. Specifically these assessment tools enable them to reclassify redness as the first stage of necrosis, which avoids trivializing these signs. Other repertoires also facilitate early action processes by helping staff recognize the risk of pressure ulcers. Finally, the nurse assistants and nurses at the three hospitals studied are equipped with repertoires that allow them to implement specific expertise for identifying pressure ulcers and their precursors. Table A2 in the Appendix describes the use of the repertoires. A nurse assistant at hospital H1 describes the process: "Malnutrition and dehydration are also important. We monitor these issues. If a patient doesn't get out of bed, we know we should give him a Nimbus [mattress]. If one becomes available we give it to the patient... We had a training seminar two or three years ago which lasted two hours to see how much we know. It's important to be vigilant."

Facilitating and channeling action-taking by action principles

The care teams use tools (protocols, record forms, visual aids) and special coordination processes that facilitate and guide the action. The nursing teams for example use a channeling mechanism they call "targeted handover reports" [focus charting]. "Targeted handover reports" prioritize the information handed over between the teams to guide the collective efforts on a specific aspect of patient care. The vigilance for a given patient is thus transferred during shift changes. General rules of action are also established. For example, as a result of the improper use of a compression bandage, the doctor at hospital H1 reminded his team of the different causes of pressure points. In doing so, he transformed a particular collective experience into a general principle of attention on the role of pressure. This principle can be mobilized in many other situations and will empower the front-line actors to make decisions. Table A3 in the appendix gives some examples of the formulation of action principles. The doctor at hospital H2 summarizes one of these principles: "We said: all patients with bedsores should have a pain chart and we checked to make sure this was the case. We monitored the situation, we conducted audits."

Providing a toolset

We also observed that as soon as the early signs are seen, the health care staff in the three hospitals can act quickly thanks to the existence of a toolset. The nurse assistants at hospital H2 were trained to use a decision flowchart for the allocation of equipment, allowing them to optimize the use of the pressure redistribution mattresses available. Special fortified meals were developed with the kitchen at hospital H3. This new tool shortens the time required for dietary management to be implemented. Emergent processes involving the constitution of a reserve stock of meals, invented by the nurse assistants at hospital H2, also help get around dietary prescription requirements. Finally, hands-on training in using the tools can result in quicker and more effective action. Table A4 in the appendix gives several examples of the work of preparing the toolset, in particular by the ward managers: "The role of the manager is to ensure that the information on curative and preventative techniques is communicated and understood. When it comes to using the equipment, the manager's role is to make sure everyone is aware of what's available and that everyone works toward the same goal... New staff members arrive all the time, we need to educate everyone."

Sensemaking

Doctors are readily available to answer the questions of nurses and nursing assistants and give the necessary explanations. This reverses the prescription rules and makes the doctors available to front-line agents. The ability to consult with the doctors for advice prevents the situation from deteriorating, keeps it in a manageable state and especially makes sense of the action undertaken. Re-assessment processes are also regularly conducted. In hospital H1, patient cases are discussed after the fact at weekly staff meetings, while hospital H2 frequently conducts audits on practices to verify the results. The head of the department at hospital H3, meanwhile, participated in many conferences where he presented encouraging results on new techniques, which generated recognition for his expertise and that of his team. The pharmacist of this hospital, whose remarks are reported in Table A5, expressed the need to renew the commitment of the teams by reporting on their practices: "It's important to document the care provided to get better results, to work together better. We can share know-how, the same equipment, monitor patients at risk. We can pool our knowledge."

THE TOOLS THAT SUPPORT THE ACTION SCRIPT

The tools used in the prevention and treatment of pressure ulcers have a special importance in the management of pressure ulcers (Orvain & Routelous, 2012), in particular when it comes to identifying problems, choosing the actions to be taken and selecting the right equipment. They facilitate, delimit and guide the action without dictating it too specifically. We can group them into three types of tools that correspond to themes 2, 3 and 4 of the action script (see Figure 1). The health care staff interviewed described first using repertoires of signs to identify people at risk, anticipate the risk of developing an ulcer and assess the severity of the risk. These repertoires also contain a number of stories that keep the experiential memory alive.

Next, principles of action form another category of tools. They are often expressed in terms of general principles which must then be interpreted by the actors. Avoiding pressure points is often emphasized, whether it be the pressure of a sheet, a bandage or simply the weight of the body against the edge of a chair. This focus on pressure points guides the action based on a general principle that can be mobilized in many different situations.

Finally therapeutic equipment, mainly dressings and pressure redistribution mattresses, is a third type of toolset that guides and facilitates action-taking.

The range of tools available (repertoires, principles, toolsets) conditions the possibility of selecting problems and solutions in the action phase. The tools also interact with other themes of the action script. For example, prior to the action phase, assessment forms for identifying patients at risk are provided as part of the institutional policy of hospital H2 in the fight against pressure ulcers, thus placing the teams on alert. After the action phase, the tools form a memory of past action that factors the experience into the equipment available. For example, the too narrow compression bandages that caused an ulcer were removed from the cabinets at hospital H1, after discussion among the team. The tools help solicit and renew the engagement of the teams.

ATTENTIONAL PROCESSES

Each of the themes of the action script can be mapped to one of the three forms of attention proposed in the literature (Ocasio, 2011).

Attentional perspective

Each doctor, along with the ward manager, puts the issue of pressure ulcers into perspective. Alerting people to the issue of pressure ulcers is thus a collective mechanism that recruits their attention and makes each person co-responsible for collective vigilance. The nurse at hospital H1 provides an example: "Preventing bedsores is on everyone's mind, even before redness appears, we set everything up, the bed, [the diet] with the dietician..." Vigilance is not a spontaneous process, but a social construct that alerts the team to a previously identified risk. The risk is put into perspective by linking it to broader perspectives that make sense of the corresponding care activities.

Attentional selection of problems and solutions

In the execution phase, the action is supported by attentional selection of the problems, solutions and actions.

First, the collective attention is supported by technical preparedness that makes it possible to identify risk situations. Describing the danger encourages people to switch from simply observing to actively watching out for the event and already anticipating what action to take. Next, the rules of action are usually expressed in terms of simple, easy to understand principles that enable people to take fast action and monitor the results. In this respect, the targeted handover process by the nurses was mentioned several times by the interviewees. An excerpt from Table A3 shows the importance of this process for channeling the collective attention: "When we have something to say we say it. Targeted handover is short, we don't spend a lot of time, we need to focus on what's important. We have our handover notebooks. We have a handover board. We look at the board and we see if there are bedsores, if there is a big bedsore, we know about it." The doctors and managers also emphasize certain principles of action they wish to promote. Finally, the quality and speed of response depend on the availability of a toolset that can be used to respond to emerging events and work overload situations. The toolset gives direct access to common tools developed in advance, which provides guidance while allowing freedom in the final selection of the tool.

Attentional engagement

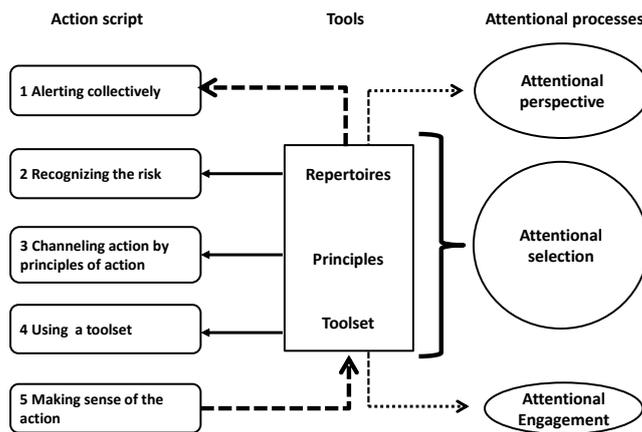
When the meaning of the action is in doubt, the ability to consult with an expert for immediate advice helps people reassess and understand the situation. Doctors, occupational therapists and dieticians therefore make themselves readily available to the teams in the wards. In the longer term, these interactions result in frequent updates to the assessment forms, action principles and tools. For all three hospitals, the goal is to make sense of the work and identify areas for improvement in the perspective that has been chosen. The manager of hospital H2 forcefully states that "In decision-making, we must readjust until things are going well. And let people know that things are going well. Go from the action to the result. And the result should lead to the elimination of the problem. That's the idea. This must be [the mindset] at all times..." The entire system is regularly re-evaluated, discussed and adjusted, which helps maintain, strengthen and make sense of the collective engagement.

THE QUI-VIVE PATTERN

Qui-Vive is a pattern, as we defined it in the method section, because it closely combines an action script, special tools that support it and different types of attention. Figure 2 shows the correspondence between the sequences of the action script that correspond to the five analysis themes, the tools that support the script and the three varieties of attention described by Ocasio (2011).

The preceding analysis has demonstrated the essential role of tools in supporting the sequences of the script associated with attentional selection. These relationships are represented in Figure 2 by solid arrows linking each type of tool to a particular type of action. These tools facilitate action in the execution phase. The abundance of detail on this second form of attention shows how important it is in the pattern that we observed.

Figure 2. Organizational *Qui-Vive* pattern



Tools also have a role, albeit more indirect, when it comes to actions corresponding to attentional perspective and attentional engagement. These relationships are shown by dotted arrows. Tools prepare the way for sounding the alert and help indicate the perspective in which the action is situated. The pressure ulcer risk assessment forms are a prime example of this. Tools also act as a record of past actions and make sense of the action. This adaptation of tools is particularly evident at hospital H3, which, to position itself as referral facility, invests in new technologies.

Tools thus play a triple role in attentional processes. Mainly mobilized during the execution phase, they help to channel attention to the selection of risk situations and the choice of treatment tools. But they also have relationships with the other two processes. Prior to the execution phase they reaffirm the perspective chosen by anticipating risk situations and prevention methods; after the fact, they constitute a memory of past actions, which reinforces the engagement in preventing and treating pressure ulcers. In the words of Ocasio (2011, p 1293), tools are attentional carriers.

WHAT ORGANIZATIONAL QUI-VIVE ACCOMPLISHES

The attention-action pattern can now be characterized by what it makes it possible to accomplish using the different varieties of attention. We can define Organizational *Qui-Vive* by showing how it helps the actors anticipate the action by alerting a network of sentinels, how it equips the actors by giving them the means to act quickly and bringing consciousness into the action, and finally how it makes sense of the action and keeps the actors engaged.

QUI-VIVE ANTICIPATES THE ACTION

The healthcare staff is placed on alert by the channeling of their attention to the development of pressure ulcers. Equal attention is not paid to all kinds of events; instead a large part of the attention is focused on a particular event designated in advance. This focus on the occurrence of a particular event makes it possible to anticipate the action in the attention. Thus, the team at hospital H2 obtains information from the general practitioners before the patient is admitted, which allows them to order a pressure redistribution mattress in advance when necessary. The dietician at hospital H3 has set up fortified meals, and she lets the nurse assistants decide when to administer them. This makes it possible to take early action and short-circuit the long prescription process. A dietary diagnosis can subsequently confirm or reverse this action.

Narrative 1 illustrates this property of *Qui-Vive*. It shows how the physician and healthcare manager at hospital H2 specifically channel the attention of the teams to the risk of pressure ulcers and make it part of a more general perspective of action.

Narrative 1. Hospital H2

The doctor at hospital 2 explained during a visit that to improve the practices of her team, she draws on the major national health programs. She has worked hard on pressure ulcers and she wants to work on malnutrition in the coming years. When I asked her why she doesn't carry out these projects simultaneously, she explained to me that to change people's habits, she has to focus on one project at a time and integrate it into a general improvement program.

The ward manager has set up an information sharing system by fax with general practitioners. This allows her to announce the arrival of a new patient and to collectively prepare the teams. She believes this helps make the teams aware of the person's situation and anticipate their needs, especially regarding the management of pressure ulcers for which the ward physician has set up a plan for improving practices.

Qui-Vive expresses a form of collective response that closely combines awareness of the problem and ways to address it early. The tools, which are prepared in advance, encourage quick action by a group that is aware of the problem and ready to take pro-active action to address an undesirable situation designated by the organization.

QUI-VIVE BRINGS CONSCIOUSNESS INTO THE COLLECTIVE ACTION

The teams are on the alert or take alert action, which does not determine the action itself but rather how the action is carried out. Fast action is highly valued by teams who practice Organizational *Qui-Vive*. Pressure ulcers can develop at any time and anywhere, and they can worsen quickly. The teams who are used to dealing with pressure ulcers are accustomed to being vigilant and taking resilient action. The doctor at hospital H1 explained that his team takes faster action than the other teams when it comes to treating pressure ulcers. What other hospital teams see as a chronic occurrence is considered on his ward as a very acute problem along the lines of a myocardial infarction. Fast action is seen as a cardinal virtue that guides the choices without waiting for an accurate diagnosis or a carefully thought out therapeutic strategy.

Narrative 2 shows how the desire to take fast action changes the ways the action is carried out.

Narrative 2. Hospital H3

Treating malnutrition is an important part of the management of pressure ulcers. The treatment usually consists of costly nutritional supplements. In most wards this leads to a prescription principle that entails a long chain of command: the nurse assistant reports nutritional problems to the nurse, who alerts the doctor. The doctor prescribes a dietary assessment by the dietician and then the supplements will be ordered from the pharmacy and ultimately administered by the nurse assistant.

The dietician at hospital H3 came up with a completely different circuit to save time. She spoke to the kitchen staff and asked them to prepare meals fortified in sugars and fats. When the nurse assistants are worried about the nutritional health of a patient, they order him this type of meal. The dietician goes to the kitchen every day and sees which patients have had fortified meals. She then establishes a more accurate diagnosis and reports to the doctor, who prescribes more sophisticated supplements. The patient did not have to wait for an immediate solution to his nutritional difficulties.

Organizational *Qui-Vive* brings consciousness into the action by indicating particular cognitive methods for the performance of the action. It promotes collective attitudes of vigilance and speed that will condition both the choice and the sequence of actions. This conception of action, supported by attention-action patterns, differs from the more classical cognitive vision that introduces a gap between thought and action. In the classical conception of action, solutions are chosen prior to the reflection on how they will be carried out (Marshall, 2008). With Organizational *Qui-Vive*, it is not so much the action itself that is anticipated as the manner in which it can be accomplished. In the example provided in narrative 2, the rules of prescription were reversed to meet the need for quick action. *Qui-Vive* prevailed over the conventional process of diagnosis followed by treatment.

QUI-VIVE MAKES SENSE OF THE ACTION AND SUPPORTS ENGAGEMENT

Qui-Vive is a collective expertise that facilitates mutual understanding among the different professions. The actions implemented by front-line actors can trigger actions by other actors. For example, the arrival of a patient with a pressure ulcer at hospital H3 will immediately raise an alert for the doctor, the dietician and the occupational therapist. Hospital H1 (narrative 3) provides another example of this mutual understanding process, in which a new interpretation of the causes of pressure points is developed based on a shared experience. All the team members are thus bound by common interpretations that determine how they deal with pressure ulcers and create reciprocal engagements. This gives a collective sense to each person's actions.

Narrative 3. Hospital H1

During a visit to hospital H1, I witnessed an adverse event. The ward physician took me to see a patient presenting redness on one leg. Two nurses accompanied us. Recently a new nurse applied too narrow a compression bandage on the patient's leg. The doctor commented on the event and explained that the pressure of the bandage probably impeded blood flow. At first, this appeared to me to be a routine event, but I later realized during various meetings that the information had spread quickly and was being commented on throughout the ward. The collective emotion aroused by the event led to the creation and rapid spread of new collective knowledge. Everyone is now aware that it is important to pay attention to the width of compression bandages. The ward manager plans to make it a rule and inform newcomers to the ward because they do not have the same experience as the more senior agents.

Organizational *Qui-Vive* is actually a kind of ideal of the action to be undertaken, or in other words a primary framework for action as described in Goffman's frames of experience (1991). This ideal guides perspectives, leads to mutual understanding of actors and aligns their individual actions. In this type of action, the actors gain empowerment, but by making use of a particular attention-action pattern, namely Organizational *Qui-Vive*. The Organizational *Qui-Vive* pattern is a rhetoric of action (Lorino, 2005b), a narrative principle that enables actors to situate their contributions in a collective pattern of action (Pentland & Feldman, 2008).

DISCUSSION

Contemporary approaches to safety in hospital healthcare have recently moved away from a standard instrumental conception of risk management. The processes that are based on long chains of reporting and feedback have reached their limits and do not result in substantial gains (Saintoyant, Duhamel & Minvielle, 2012). The coordination models based on quick feedback mechanisms and a stronger link between attention and action, according to the mindfulness principle, are considered both as effective and as ushering in a new culture (Vogus, Sutcliffe, & Weick, 2010). However, the emphasis on mindfulness overlooks the tools routinely used to ensure safety in healthcare.

In comparing Organizational *Qui-Vive* and Mindfulness using the categories of attention proposed by Ocasio (2011), we will first discuss the distinguishing features of the pattern that we observed. We can then extend this reflection by considering that *Qui-Vive* belongs to a broader range of patterns linking attention and action that are used to respond to different situations. Finally the use of this coordination model in other areas than healthcare can be discussed and we will also show its limitations. This will open up new avenues of research.

ORGANIZATIONAL QUI-VIVE AND MINDFULNESS

With the concept of Mindfulness, Weick and Sutcliffe (2006) semantically emphasize the issue of mindful attention in action. Weick attaches great importance to the immediate or retrospective nature of this attention rather than its ability to anticipate. We have shown, however, how Organizational *Qui-Vive* can anticipate the action in the attention. This difference can be further explained by comparing the two patterns based on the three varieties of attention. The two patterns, which both create a strong link between attention and action, are

compared based on the different varieties of attention in the table below (Table 2).

Table 2. Comparison of different patterns linking attention and action

Type of attention	<i>Qui-Vive</i>	Mindfulness
Perspective	Early vigilance with respect to a particular risk	Mind open to all perspectives
Selection	Tools prepared in advance rather than tinkering (bricolage)	Intelligent tinkering (bricolage)
Engagement	Reassurance as to the meaning of the action and adjustments as needed	Sensemaking during the course of the action

Attentional perspective. *Qui-Vive* prepares sentinels for a particular type of event without necessarily indicating exactly what action to undertake. This early vigilance points out the perspectives and possibilities for action. Mindfulness however has a much broader perspective. It focuses attention on a situation where a coming event is quite unexpected, hence the title of Weick's book: "Managing the Unexpected" (Weick & Sutcliffe, 2007). For Organizational *Qui-Vive*, this aspect of attention is important because it channels vigilance. The importance of guiding perspectives calls to mind the distinction between sensegiving and sensemaking (Gioia & Chittipeddi, 1991). Attentional perspective is based on channeling perspectives, which gives meaning to the action, while sensemaking occurs during or after the action. In other words, while Mindfulness emphasizes sensemaking, Organizational *Qui-Vive* emphasizes attentional perspective.

Attentional selection. *Qui-Vive* empowers actors by providing them with shared knowledge and a range of shared actions through significant investment in the preparation of tools that will equip the action. In contrast, Mindfulness recommends seeking out expertise that is distributed in the organization, it encourages opportunities for bricolage to invent solutions, but it does not anticipate these opportunities. Invention and innovation are important resources of attention for the Mindfulness pattern, while Organizational *Qui-Vive* is essentially based on a toolset prepared in advance. Bricolage does exist in *Qui-Vive*, but the resulting action tends to become an enduring resource that will anticipate future situations.

Attentional engagement. *Qui-Vive* can content itself with supporting the action without creating new types of engagement. It simply needs to reaffirm the primary meaning of the action. In contrast, Mindfulness invests heavily in making sense of the action and creating new types of engagement in the action. For Mindfulness, changing the meaning of the action helps manage unexpected situations by not limiting actors to an initial pattern of interpretation. In contrast, for Organizational *Qui-Vive* the goal is to reaffirm the perspectives selected. Again, Organizational *Qui-Vive* can make new sense of an action, but the effort made to define perspectives and engage the attention towards a particular risk is greater.

QUI-VIVE IS AN INTERMEDIATE APPROACH TO STRUCTURING COORDINATION

Weick distinguishes two types of couplings that directly affect the opposing principles of efficiency and reliability (Orton & Weick, 1990; Weick & Roberts, 1993). The first type, described as a tight coupling between actors, is often used in situations where there are very few unexpected events, with low-risk

technologies and direct reporting lines. In contrast, the second type of coupling is described as a loose coupling between actors. Mindfulness is part of a loosely coupled system. This type of coupling is used in complex situations where the actions to be undertaken cannot be predicted accurately because interactions play an important role. By focusing on pre-defined tools, Organizational *Qui-Vive* moves towards tighter couplings along a continuum that allows for coordination models that vary between loose couplings and tight couplings. *Qui-Vive* appears as an intermediate approach to structuring the link between attention and action.

This idea of a continuum supports the theory developed by Levinthal and Rerup (2006), who state that mindfulness does not exclude routines but rather that the two are complementary (see also Levinthal & Warglien, 1999). The need to use different varieties of attention has also been described in the management of rare crises (Rerup, 2009). Because the different types of loose couplings are distinguished by the importance granted to one or the other of the varieties of attention described by Ocasio, it is possible to contextualize the action in the field of safety (Elsbach, Barr & Hargadon, 2005; Journé & Raulet-Crosset, 2008, Hollnagel, 2009).

TRANSFERABILITY AND LIMITATIONS OF ORGANIZATIONAL *QUI-VIVE*

The attitudes that are specific to Organizational *Qui-Vive*, and that we observed in the hospitals during this study, can be extrapolated to enhance the reliability of organizations in general. In different contexts, different situations may arise. In the case of a known risk that may occur at any time, the reliability of the organization is based on the ability to select the varieties of attention and to prepare tools to respond to the situation. This will empower the front-line actors, while delimiting the range of solutions based on the type of tools made available. However, when the risk is totally random, the Mindfulness pattern seems more appropriate because it helps make sense of the action without prejudging the circumstances.

The different patterns linking attention and action actually organize an attention economy: they can optimize the use of attention, and they can degrade its performance. The *Qui-Vive* pattern, and probably even more so the Mindfulness pattern, by calling for vigilance, may indeed run the risk of generating burnout among front-line actors. *Qui-Vive* could exacerbate the worries of the actors and undermine their performance. This is one of the limitations of this pattern, which cannot be applied in all types of situations because of the risk of burnout. Clearly, it is necessary to contextualize the use of Organizational *Qui-Vive*.

The limitations of Organizational *Qui-Vive* give rise to new research questions. It would be interesting to study how the different attention-action patterns emerge in organizations. Are the patterns different depending on the functions and work schedules within the organization? Do we observe mimicry or, conversely, segregation in the choice of patterns? Are there processes for transitioning from one pattern to another depending on the evolution of risk? All these questions typically fit into the program of Simon, March and Cyert on the possibilities of allocating attention within organizations (Simon, 1983; Cyert & March, 1992).

CONCLUSION

The study of a particular type of care in hospitals has revealed a common pattern linking attention and action we have called Organizational *Qui-Vive*. The centerpiece of the Organizational *Qui-Vive* pattern consists of an action script and

tools that support different attentional processes. Organizational *Qui-Vive* recruits different types of attention that have been described in the literature: attentional perspective, attentional selection and attentional engagement in the action.

Organizational *Qui-Vive* creates a working organization that structures, in a particular manner, the link between attention and action, but it is different from other patterns linking attention and action. It stands out in particular from Mindfulness as described by Weick, which has been used to characterize safety processes in hospital settings (Vogus & Sutcliffe, 2007). In both cases, the description of the activity relies heavily on a close relationship between attention and action. But in the case of Organizational *Qui-Vive* the focus is on the first two categories of attention (attentional perspective and attentional selection), while in Mindfulness the last category predominates (attentional engagement). In addition, predefined tools play a more important role in Organizational *Qui-Vive*. These different patterns linking attention and action are part of a larger family of coordination involving more or less loosely coupled activities. These couplings provide a framework for the actors while still empowering them, which may have applications far beyond risk management in hospitals.

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APPENDIX A. STRUCTURE OF PRIMARY AND SECONDARY THEMES

Table A1. Attention is a collective alert mechanism

Everyone is involved in the collective activation of attention	<p>"When patients arrive, it's the first thing we look for... Bedsores are not normal, it's our boss who said that. We follow along, but he's right." (Nurse Assistant H1)</p> <p>"Preventing bedsores is on everyone's mind, even before redness appears, we set everything up, the bed, [the diet] with the dietician... The whole team is involved in the process." (Nurse H1)</p> <p>"Here it is not completely hierarchical, everyone should give the alert, everyone has a role, if you use too many tools that can be counter-productive. What's important is not to achieve quality for quality's sake What's important is when the team follows along, I think that's great. I don't want to be a bedsore specialist, it is better to provide training. Work on the culture of the ward. (Doctor H2)</p> <p>"Here in the hospital we pay attention to changing [patient] positions and hydration. It's rare to see bedsores. If the patients arrive with bedsores, they don't leave with them, that's just how it is! This shows that we provide good care." (Nurse Assistant H3)</p>
Personal engagement is elicited	<p>"Compared to 25 years ago, things have changed, it's had a huge effect... On our ward we are very attentive to this issue, and we're successful. I'm totally sincere. Our boss taught us that." (Nurse Assistant H1)</p> <p>"For me it was clear: I am the person of reference for bedsores in the hospital, so there absolutely cannot be any bedsores on the ward. There is multidisciplinary communication, the nurse assistant knows that people will pay attention to what she says. (Doctor H3)</p> <p>"We've encouraged the staff, be it the nurse assistants or the nurses, by showing them, getting them directly involved." (Doctor H3)</p>
The organization shows the importance it attaches to attention.	<p>"The message spreads quickly throughout the team. The first time a new girl had to say that a red spot had appeared, it wasn't easy. The fact that there is this fear, we do everything we can to make sure we provide the best care possible." (Nurse H1)</p> <p>"There were lots of meetings with nurses, this led to the first dressing record form, we evaluated the type of bedsore and the dressing we used. A procedure was developed for the prevention of bedsores throughout the hospital. A poster was written and put up in the wards. Training sessions were held." (Doctor H2)</p> <p>The hospital has a good reputation in this area. The families don't pay attention to this issue. It's more among hospitals, we judge our colleagues." (Pharmacist H3)</p>

Table A2. Attention is prepared by creating repertoires

<p>Trivialization is avoided by raising awareness.</p>	<p>"I act based on my emotions because if we trivialize it we simply don't see it any more. There is a fatalism that sets in." (Doctor H1) "Bedsore are not inevitable. The nurse assistants' vigilance is the most important thing. They are the first people who should be trained. If they don't give the alert, none of the rest will work." (Doctor H2) "The general public is not really aware of this issue, people need to be more attentive, there should be therapeutic education on the importance of nutrition. The general public is uninformed and not educated about the issue. There is a fatalistic attitude." (Dietician H3)</p>
<p>Attention is a learned technique.</p>	<p>"Malnutrition and dehydration are also important. We monitor these... issues. If a patient doesn't get out of bed, we know we should give him a Nimbus [mattress]. If one becomes available we give it to the patient... We had a training seminar two or three years ago which lasted two hours to see how much we know. It's important to be vigilant." (Nurse Assistant H1) "A dynamic system has been set up: first a dressing group in 2002, a dressing record form for traceability, staff training, a handbook was produced." (Doctor H2) "It was very hard, because I wanted there to be trained nurse assistants, i.e. certified... So we had to assess their knowledge and they realized that in fact they didn't necessarily have the knowledge and therefore the skills couldn't be fully implemented." (Manager H2) "The nurses talk openly about the issue. They dare to say that there are bedsore. That makes people want to review the stages of severity, I do that from time to time. We could calculate the impact of nutrition based on the stages." (Dietician H3)</p>
<p>Raising the alert is defined as a specific role</p>	<p>"It's based on people, discussions, communication. Dr. B is a great actor. When redness appears he puts on a big show [of being upset]." (Nurse H1) "The nurse assistants have been educated, whenever there is redness they report it, they give the alert. This is really the first thing, it's what's most important." (Doctor H2) "The nurse assistants play a major role in terms of observing and reporting if there is a risk. We raise the alert." (Nurse Assistant H3)</p>

Table A3. Action-taking is facilitated and channeled by principles of action

The situations are qualified and recognized	"The doctor talks about it regularly, both explaining preventive methods, focusing on it when he goes to see this kind of thing. When there is a problem he focuses on it and gets everything going right away." (Nurse H1) "We held a meeting where we made everything very clear. When I receive someone I indicate it on the schedule, I indicate where she is coming from, why she is coming and what her level of autonomy is. Why she is coming, whether she has bedsores or not." (Manager H2)
The transition from attention to action is modelled to occur quickly.	"When we have something to say we say it. Targeted handover is short, we don't spend a lot of time, we need to focus on what's important. We have our handover notebooks. We have a handover board. We look at the board and we see if there are bedsores, if there is a big bed sore, we know about it." (Nurse Assistant H1)
General principles guide the action	"We said: all patients with bedsores should have a pain chart and we checked to make sure this was the case. We monitored the situation, we conducted audits. We set up dressing record forms in the wards. We had 2 types of record forms, now it's computerized." (Doctor H2) "And at that point we said, well, we just have to work. We start with an observation, an observation that there are things that are not acceptable. So we can't let these things go because there is an impact on the patient, there is an impact on the caregiver. Here there are a lot of things that are done in terms of training about patient abuse." (Manager H2)

Table A4. A toolset is made available

Rituals and routines are established and constantly reviewed	"The nurses and assistants know what to do. The problem is to make sure they do it at the right time. So I say it has to be an obsession... It has to become second nature. We can't forget important things, it's an automatic ritual." (Doctor H1) "In all the different hospitals, we need to provide the same management and care. We need to have the same monitoring, for patients who are in transit." (Pharmacist H3) "For direct admissions, we developed a form that we send by Internet to the doctor who sends it back by Internet to provide us information about the person's condition. We created the form and sent it to all the general practitioners. Based on that, I fill out my info sheet, a label. I put it on the card that goes on the wall chart." (Manager H2) "When I did the audit I went to see if they used focus charting and targeted handover methods. Targeted handover was introduced in 2008. Targeted handover makes sure things are documented in the patient chart." (Doctor H2)
Toolsets and trainings facilitate the action-taking	"A well-organized team will make the best use of everyone's skills. You have to have the knowledge, training, hands-on training, and then find the best way to get the entire staff to work efficiently. The problem with bedsores is that to prevent them you have to take quick action. In wards where we're used to [managing this type of risk], things are organized. (Doctor H1) "The role of the manager is to ensure that the information on curative and preventative techniques is communicated and understood. When it comes to using the equipment, the manager's role is to make sure everyone is aware of what's available and that everyone works toward the same goal... New staff members arrive all the time, we need to educate everyone." (Nurse H1) "Information is provided on the correct use of dressings for each stage. The nurses talk openly about the issue." (Dietician H3)
Opportunities for immediate action are given to operators	"We established a flow chart to decide which type of mattress to use. We realized that the mattresses were not assigned correctly. The Nimbus mattress was assigned to people who didn't need it. We don't indicate the specific type because I want to involve the nurse assistants and nurses in the decision." (Doctor H2) "Here we do an admission assessment, there is a protocol on the treatment carts showing how to recognize the different stages. There is a booklet that helps determine the stage. We have a basic list for the dressings, but everyone sort of works on their own. There is a broad range [of dressings], on the wards they don't always know which to use. It isn't easy to [choose which to use] based on category or class. [The doctor] does the most complicated dressings. So the nurse is motivated [to learn and improve]." (Pharmacist H3)

Table A5. The action is constantly justified (sensemaking)

Attention is focused on the results	<p>We know that we're being effective when the bedsores are gone... On the team, if there is a bedsore, we ask ourselves what we did wrong. And we'll be three times more vigilant when treating it." (Nurse Assistant H1)</p> <p>"In decision-making, we must readjust until things are going well and let people know that things are going well. Go from the action to the result. And the result should lead to the elimination of the problem. That's the idea. This must be [the mindset] at all times and we should see the person's condition improve or see the problem resolved." (Manager H2)</p>
Advisory mechanisms are used to continually review the script	<p>"When you're worried about a particular patient, when there is a problem, redness, a friction blister, whatever. We know we can ask [the doctor] for advice, ask what kind of dressing we should use. When we ask for advice, we know he pays attention, when we need advice we know we can ask and he will listen and tell us how to treat [the bedsore], which dressing to use, what product to use, and even how to apply it. (Nurse H1)</p> <p>"I try to go see as many wounds as possible. My colleagues do as well. When we look at the wound we talk to the nurses, they let us know when there are difficulties, they have their ideas and I have mine; we come to a consensus." (Doctor H2)</p> <p>As soon as there is a wound somewhere there is a request for consultation both externally and internally. If there are bedsores on the third floor, they will ask the doctor." (Doctor H3)</p> <p>"The home health nurses tell me how upsetting it is. They don't know what to do. They may be very effective, but when it's necessary we can take the patient back and treat him with powerful painkillers. There has to be a recourse strategy. We have an environment that makes it possible to use resources that require a safe environment. We can priorities the recourse process." (Doctor H3)</p>
The attention-action script is constantly reassessed collectively	<p>"[At the staff meeting] the doctor reports on each patient, explaining what the patient has, explaining the therapy used, the treatments, the progression and what will comes next for the patient... The doctor explains, and each person gives his opinion on the progression, what we think, if there needs to be an adjustment in any area." (Nurse H1)</p> <p>"We use premedication a lot, we have a large consumption of opioids. We routinely evaluate pain based on pain scales. If it hurts we don't do it, the doctor, nurses and nurse assistants discuss things together to decide whether we should do it." (Doctor H2)</p> <p>"It's important to document the care provided to get better results, to work together better. We can share know-how, the same equipment, monitor patients at risk. We can pool our knowledge." (Pharmacist H3)</p>

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