Electronic supplementary data 2 _ Quotations related to subthemes and themes.

Themes	Sub-themes	Dimensions*	Quotations
Impact of staff competencies and skills	Differences in staff training and knowledge	Pediatric training	“Finding myself with 3 new nurses at night. When questioned the nurse answered, "but have you ever seen a child?" "No! I until recently worked in geriatrics " [FGphysicians].
		Specialty clinical skills	"Often we happen to have free beds and we happen to admit anything and everything, from serious anemias to anemic-uremic syndromes,... everything! So these children make us busier that our usual patients " [FGnurses].
			"But I must tell the truth ... well ... every medical doctor is a world apart, and his training is too specific for that disease ... but I see that they are struggling, even our doctors are not trained to care for children of other specialties." [FGnurses].
	Individual self perceived ability in identifying and responding to clinical deterioration	Past experiences increasing self-efficacy to escalate care	"When they call you because there is a child who desaturates, you do not say: "ah yes, the usual..", you run upstairs because you remember what happened the first time. But maybe you arrive upstairs and it’s already over and the patient is doing well" [FGphysicians].
			“There are “older ” nurses, with a lot of experience and with them I feel very sure unfortunately now the new ones are coming, they will also grow up but they don’t have the same experience” [FGparents].
		Interdisciplinary credibility based on competence and self-efficacy	“Because the doctor maybe wont’t listen to the less experienced nurse.[FGnurses]
			"We are always very happy when we are called by nurses who have had experience in our intensive care ward because they can “spot the case” and we feel confident in their management on the ward" [FGphysicians]
			“Maybe they trust a more experienced nurse compared to a less experienced nurse, they say "but are you sure? [FGnurses].
	Peer to peer mentoring	Coaching less expert nurses	"That (nurse) says" I've seen the patient, he’s pale " ohh .. and then you tell her "take the blood pressure again ", You have to believe the nurse’s assessment .. or at least get up, check whether there was an increase, "you know, let’s wait a moment, because this is how often you should monitor it" you explain why, so that the second time, after a month, she has acquired the skills and you can trust her even more"[FGnurses].
	Locus of control: keeping high risk patients on the ward	Advanced skills to treat the deteriorating child	“… a patient at risk of infection and, therefore, perhaps they preferred to keep him in a sterile room, being less invasive as possible, so as not to expose the patient to additional risk... but then when they call us, in quotes, the patient is almost dead" [FGphysicians].

Impact of relationships and leadership in care	Teamwork	Integrated handover and care planning processes	"Handovers between doctors, between who is on duty and who is leaving, during the morning meeting... if at that meeting the head nurse participated or the head nurse brings the nurse on the following shift and took the handovers of a particular patient, a nurse who ... you know ... directly describes any critical issue about the patient, it is much more direct" [FGphysicians]
		Interdisciplinary rounding and huddles	"In my opinion there is no longer the relationship ... that is, the nurse does not participate in the rounds" [FGphysicians]
		Trusting staff members	If you are called by that nurse you know that the circumstance is well motivated and a patient screening has already been done. [FGphysicians]
	Communication	Inter-professional and intra-professional communication	"I am not happy about him (the patient), let's see him together". "No, are you going to tell the doctor?" Because the doctor maybe wont't listen the less experienced nurse... or maybe says "One moment I'm writing the results of the rounds on the clinical record, But what rounds! If I tell you that there is a child that I am not happy with, who is not doing well" [FGnurses].
	Knowing the patient and colleagues	Knowing the team	"If you are called by that nurse you know that the circumstance is well motivated and a patient screening has already been done" [FGphysicians].
		Knowing the patient	"And then working in oncology which is a high dependancy ward, I found myself having to come overnight on night duty: first without knowing the patients because they have been moved within the Department, and without knowing the nurses." [FGphysicians]. "The nurse is the one who is closely in contact with the patient, so who more than her can know the patient, and all the possible variations, because they see immediately if a child is pale" [FGparents].
	Family empowerment	Recognizing and accepting parent's competences of child's illness	"If a mum is present... also small indications ... and gives ... starts the alert mechanism... say ... that one can approach and follow the patient much more closely and avoid getting into an emergency. But it's all started by the mother and nurse who are very in tune" [FGphysicians]. "He said to me, look, as far as I am concerned, and all of us, what the mother says is not only important but it's what we listen to, right away because the mother is the first doctor, … after that there is us. So if you tell me that you saw her like this, I know it is truly like this, it's not something that we underestimate, on the contrary… so, one feels calm when a physician talks to you that way" [FGparents].
		Listening to parent's concerns	"We don't have medical competence such as a nurse but according to me it's important that the staff that helps us believe in what we tell them" [FGparents]. "What the mother says is not only important but it's what we listen to right away because

			the mother is the first doctor" [FGphysicians].
		Family centered needs and support	"Direct communication particularly by the physicians, according to me, it's the most important thing" [FGparents].
	Leadership: defining priorities	Prioritizing tasks	"My nurses are never sitting .... Sometimes the nurse makes a choice, does the things that are more urgent, makes sort of a scale (of priorities)" [FGnurses].
		Unclear accountability in escalation processes	"Usually there are 3 doctors who visit patients, clinical record, consults and so on ... but maybe when someone says something, until they come to see the patient there is always a gap of a little time. Maybe they have seen the patients in the morning and he was in a certain way, at one o'clock the situation has changed and then they start to take decisions at 3-4 pm and still more time goes by" [FGnurses].
	Interprofessional hierarchies	Hierarchies in initiating escalation of care	"In our ward you have to ask the nurse, the nurse calls the physician, if the physician thinks it's appropriate he calls the PICU physician" [FGparents]. "Something we look forward to is that, the PICU call is sometimes not by a nurse... it's by a doctor. Then the doctor decides when to call the intensivist" [FGnurses]. "The nurse has many competences and so then, if it's the physician that has to authorize it's an organizational procedure but in case of emergency the nurse could according to me act the role of the physician in some situations" [FGparents].
Processes identifying and responding to clinical deterioration	Clinical observation and patient assessment practices	Intuition – the gut feeling	"Observation must never be missing, that doesn't mean only collecting the vital signs, those already are secondary, the first is the observation, that look at a glance, the experience, so many things such as also that instinct, sometimes, that gut feeling, someone comes, and sees the patient is pale "Look, why are you so pale?" [FGnurses].
		Observing the patient and monitoring	"Surely nursing observation is one of the first things. Also because the doctor goes by, at least at our ward, only if you say "See the patient for yourself " or he has a fever pitch, desaturates ... or other little things ... the doctor is unlikely to return to the room to re-evaluate the patient" [FGnurses].
	Tools supporting the identification of patient risk and decision making	Influence of early warning scores/standardized processes	"The score triggered a series of procedures for the patient within an hour it was already in the operating room ... that we avoided a patient shock" [FGphysicians]. "We see that the patient begins to deteriorate, the vital signs, and can have a tachycardia, a desaturation, first ok first we calculate the score, in the meantime we alert even the PICU physician, so, the call occurs concomitantly, that is, it's not that before we begin to calculate the score and then by the score we call for a PICU consult, we realize right away if the patient is getting worse" [FGnurses].

	Adherence to BedsidePEWS score matched reccomendations	"It still never happened to me that a nurse has called me and said" I'm monitoring a patient according to this system, I'm having a worsening index, I warned the pediatrician who told me to alert you (PICU physician) and come see the child. This is what I expected since this system was adopted" [FGphysicians].
Ward rounding	Patient bedside rounding practices	"We, for example, we make a complete patient's round when we arrive, at the shift change, especially at night, so you're able to evaluate ... a color that changes, pain that worsens, even visually. I think that is important ... an inspection round, as a habit "[FGnurses].
	Nursing and patient involvement	"A nurse who ... you know ... directly describes any critical issue about the patient, it is much more direct" because "there is no longer the relationship (…) that is, the nurse does not participate in the rounds" [FG physicians]. "We used to have handovers in front of the patient, with the patient, sometimes with the parent, say … this handover between doctors and nurses, sometimes with the parent, definitely improved he observation of this patient, and it is critical" [FGnurses].
Situational awareness	Interpreting clinical deterioration through the BedsidePEWs	"The patient was in the Ward with high flow nasal cannulae, already with a BPEWS score of 11 to 12, steady, I had taken him at night, with a saturation of 86%. So we had that basal score. Gradually, over the following days his saturation fell. I arrived on Saturday and he had a saturation of 60%... and then you say, "There's something wrong!" ... The doctor instead says "No, but the ASD is large, it is possible that the child desaturates!" Yes ... but the child's score increased, up to 14-15, I wonder what is happening" [FG nurses].
	Fixation errors	"She had a very hard time breathing, and since there were prejudices, I would call them such, towards this patient, who was a bit irritable and then there was the doctor "No, but she is (just) complaining, she is complaining!" ... but she complains, complains, but actually she is not breathing very well ... and it was actually a white lung, the x ray was awful [FG nurses].
Rapid Response Team role	Calling RRT only in extreme clinical deterioration	"In our department the PICU physician is not called early, although some times it would have been better because ... I still remember a girl ... I do not know what happened since then she has been transferred to PICU ... ... she never came back to the ward ... and still she had seriously difficulty breathing and still the morning we talked to the doctors and said that the PEWS was (hand gesture going up) ... but then actually clinically she is very ill, she is much worse than she was this morning. And they "Oh ok, we give her a little cortisone" always like that ... and the patient did not improve, she was fine those 10 minutes, but after that she was getting worse again.. and then you come to the point that the PICU physician was called in emergency because she had a very hard time breathing" [FG nurses].

Proactive patient rounding of RRT members in support of escalation processes	“At night you make the phone call, the PICU physician phone number is little for us if we have a cardiac arrest, a respiratory problem, a desaturation, the PICU physician many times comes, runs, but if there is an emergency it’s an emergency; there should be a PICU physician that rounds and should stay because there are very delicate children on a respirator and they can have a mucus plug and there isn’t a physician at night” [FG parents]

Influence of organizational factors on escalation of care	Staffing and workload	Discrepancy between staffing levels and workload	“She (the nurse) performs activities that sometimes does not give appropriate attention to each patient because.... in short, has many activities both in the morning shift and in the afternoon shift and in the night” [FGnurse]. “Lack of staffing, a child with an urgent condition, if the child in front is also sick or the nurse at that time can’t come because she is doing something else”. [FG parents]
		Balancing nursing seniority on shift	“If there is an emergency at our ward, it’s correct that 2 more experienced nurses are accompanied by 2 new nurses (on a shift), you need a shift that is balanced by older nurses that have experience along new ones, at least at our ward it’s done like this” [FGparents].
		Reduced senior staffing present on site during nights, weekends and public holidays	"It happens at night when there is a pediatrician who is not the patient’s referent, but must supervise over two buildings, namely 5 or 6 wards, in addition to the Emergency department admissions, Emergency Room, because it is expected that he oversees the patients admitted from the ER and the hospitalized patients on the wards. So, let's say, from the organizational point of view, one or two people probably are not enough, but above all, they don’t know the patients" [FGphysicians]. "There could also be the fellow who can handle it, but there is perhaps no one in the night shift that is able to check the medications and handle it" [FGphysicians].
		Clinical record documentation workload	"Today writing each clinical record takes us 45 to 60 minutes, the patient is a second thought …There's no time! She (nurse) will run after me on the ward to tell me, "What have you decided? Do we continue or discontinue the morphine?" [Fgphysicians]. “The medical record is more accurate but leads the nurse to devote more time to writing the clinical record, there are many things that take away the nurse from direct contact with the patient, that is crucial” [FGnurses].
	Production pressure	Organizational demands on clinicians competing with patient care needs	"If there are thousands of blood samples to be collected by 8 am, then there are the drugs that are to be administered between 7-8 am... There were patients that were deteriorating at 7:30 and it was a disaster because the nurse was caring only for that patient, and could not even get help from the other nurses because it was unthinkable ... and the other nurses unfortunately had to do this job because otherwise a lot of things don’t get done" [FG nurses].
	Continuity ofcare	Service physician availability 24hrs day	"That is, the physician in charge during the day, who is managing the patient in a way somewhat 'more pushing it’”, who would never want to move the patient from there (the ward), so then maybe exaggerates in the opposite direction. Because then it might as well be that the (day) physician can handle it, but there is perhaps no one in the night shift, that is able to monitor medications and manage that patient. Such as, for example, in the high dependency ward" [FGphysicians].
		Nursing primary care	“The fact that the child is followed several times by the same nurse can help because ... changing shifts or patients too often does not help us get a sense of the history of the patient. If instead I care for a patient for 1, 2, 3 days, I know more or less the trend and if it deviates,…. If a patient is cared for by several people at different times it does not help

		much to get an overview" [FG nurses].
	Shift structure	"A big step forward was undoubtedly the transition for some medical wards, as has happened in Haematology-oncology, of two (12 hour) shifts in a day as in intensive care. It is clear that this is a total anachronism today (the 7 hour shift)! In no department you end the visit, inquiries and consults at 2 pm" [FGphysicians].
Patient pathway	Mismatch between severity of illness and level of care	We have often found ourselves in great difficulty because the patient, remained in the general paediatric department until he needed to be intubated and mechanically ventilated " [FGphysicians].
		"Paradoxically, even if they are able in some way to carry on situations beyond what one would expect on a ward, in quotation marks, then it is possible that the patient is ill, starting from a situation like that then seriously deteriorates. So maybe it was better not to get to that level of such advanced support " [FGphysician].
	Discrepancybetween child's disease and ward specialty	"No, there is always and organizational issue... a wrong department, in quotes, because there is no bed available in the Department where he belongs... the bronchiolitis going to the nephrology ward, those ... theoretically, end up all in intensive care" [FGphysicians].
	Availability of PICU beds	"You take advantage of the fact that the ward, all things considered, performs some intensive treatments to manage a patient there, because I (PICU physician) do not have any available beds. So you say "oh well we put a little of this, we put a little of that ..." you know you're pushing it'... but you do not have a bed available, so …" [FGphysicians].

* Dimensions are related to several quotations of the focus group participatns and form the bases of the subthemes and themes