

Introducing In Situ Simulation to Improve Teams Communications through Human Factors.

CWH Simulation Team

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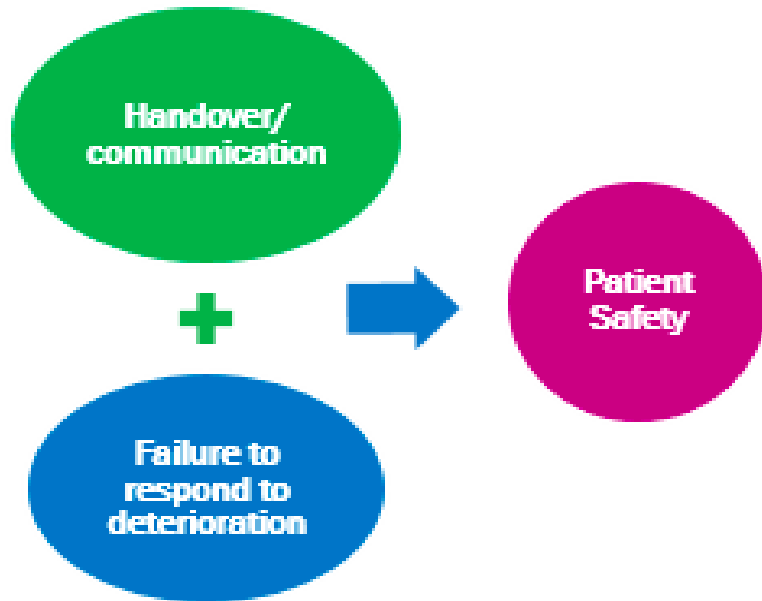
■ Background

- ISS has long been used in the aviation industry to address technical and non-technical issues, particularly focused on human factors (HF) and crisis resource management (CRM).
- Whilst medicine has embraced ISS to train staff in technical skills, there remains a gap in its use to teach non-technical skills, especially in the NHS. 2022/23 Datix reports highlighted the lack of effective communication between different teams as a critical reason for unsatisfactory patient outcomes.
- Therefore, a quality improvement project (QIP) focused on improving the delay in recognising and escalating deteriorating patients was conducted across a large teaching Trust in the UK.

■ Summary

- **Lack of communication**, especially between different teams, and the **delay in recognising and properly escalating deteriorating patients** have been identified as the main contributory factors for incidents (from moderate to severe) within the trust
- In situ training takes simulation **into the workplace**
- It allows teams to test their effectiveness in a **controlled** manner, to train for rare events in real locations with no need for time off the wards
- Our goal is to Implement and deliver Simulation Based Learning within the whole Trust and create a substantial positive impact on teams' effectiveness and patients' safety

■ Aim and Objectives



1. Design and deliver high-fidelity ISSs trust-wide whilst assessing the *feasibility* of training in an NHS trust.

2. Improving the delay in recognizing and escalating deteriorating patients and effective communication between different teams.

■ Method

- Using a Plan-Do-Study-Act (PDSA) methodology, five wards and in-patient areas were selected for bi-monthly ISS for six months
- Simulations were carried out using portable REALITi360 by iSimulate in varied locations
- A pre-brief was given to the first respondent, with a staggered entrance/escalation to mimic real-life scenarios of a deteriorating patient
- ISS lasted 30 minutes, with a 10-minute scenario and a 20-minute debrief immediately after. Participants were asked to complete a pre- and post-ISS feedback form.

■ Measurement

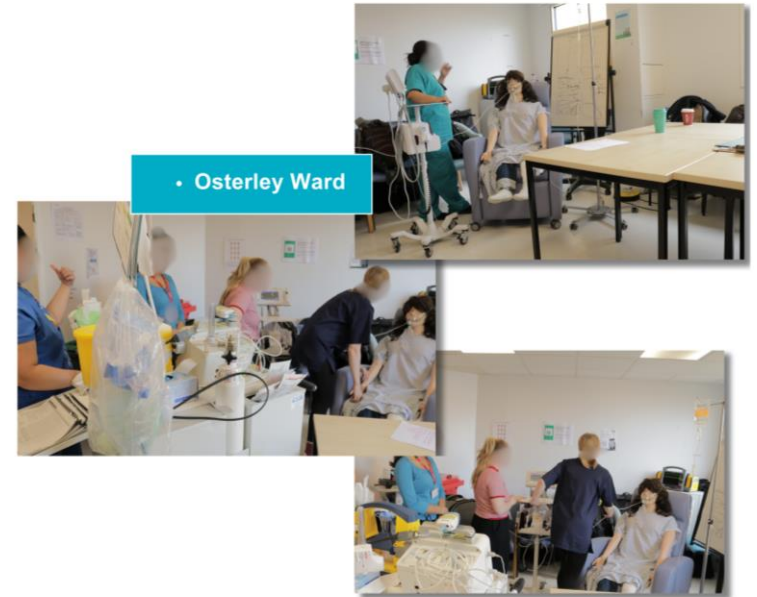
■ Primary Outcomes

- Preparedness
- Confidence in Communicating
- Awareness/Understanding of Human Factors

■ Secondary Outcomes

- Feasibility
- Satisfaction with Training

RESULTS



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RESULTS

Primary Outcomes: Preparedness

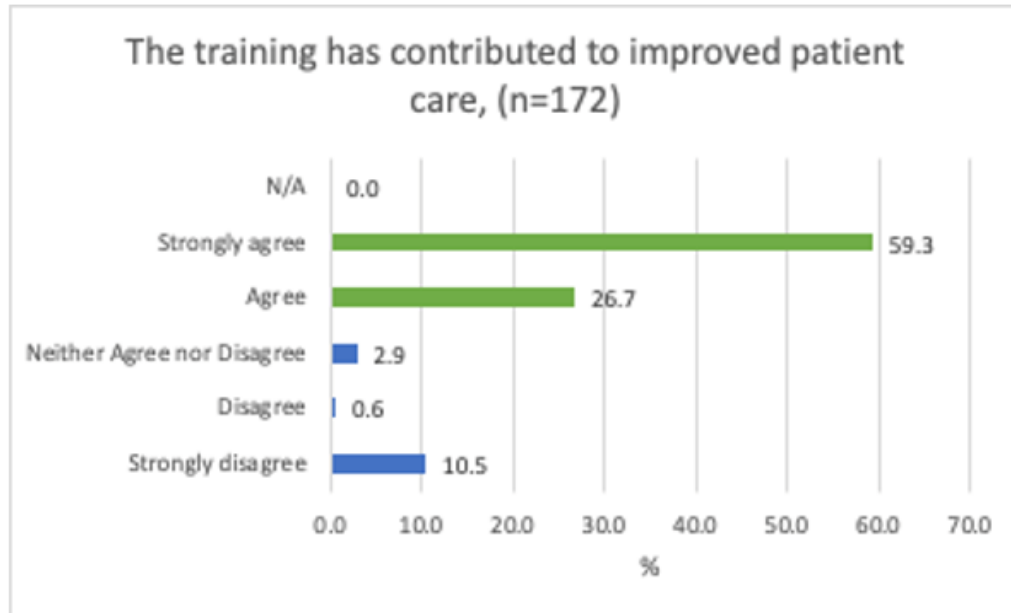


Figure 1.3.a: Percentage of questionnaire responses to the prompt “I understand more about the topics covered.”

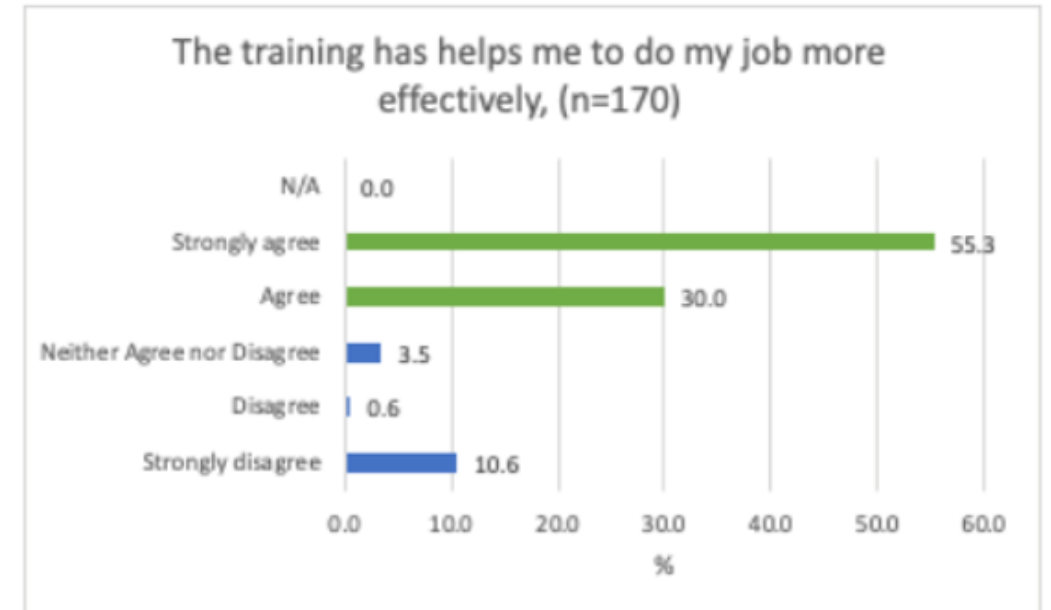


Figure 1.1.b: Percentage of questionnaire responses to the prompt “The training has helped me to do my job more effectively.”

RESULTS

Primary Outcomes : Confidence in Communicating

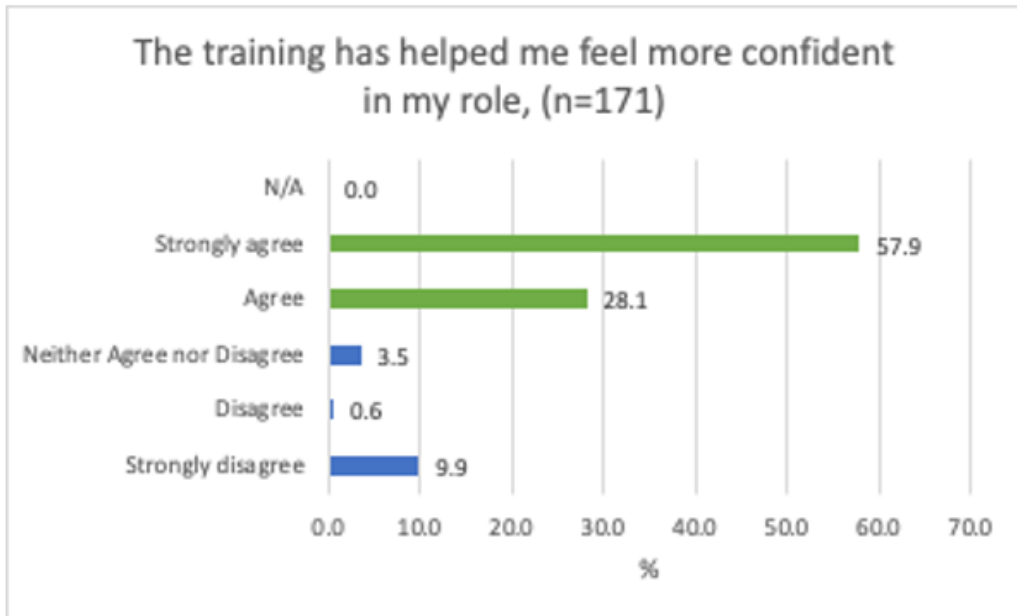


Figure 1.2.a: Percentage of questionnaire responses to the prompt “The training has helped me feel more confident in my role”.

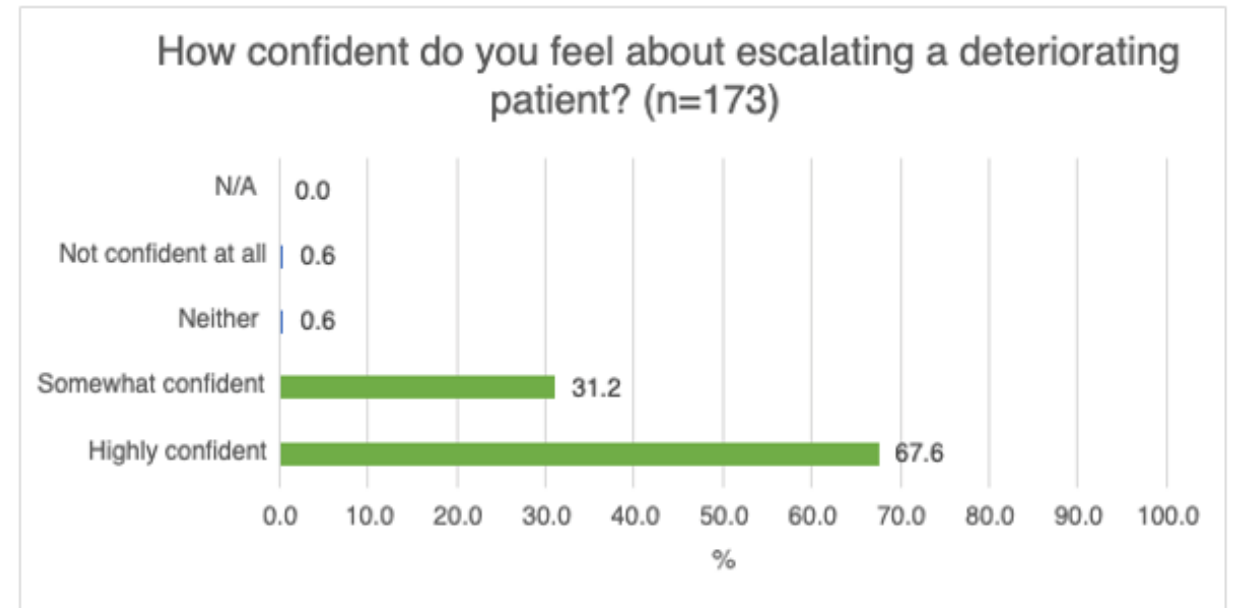


Figure 1.2.b: Percentage of questionnaire responses to the prompt “How confident do you feel about escalating a deteriorating patient?”, rated from Not confident at all, Neither, Somewhat Confident, and Highly Confident.

RESULTS

Primary Outcomes: Awareness & Understanding of HF

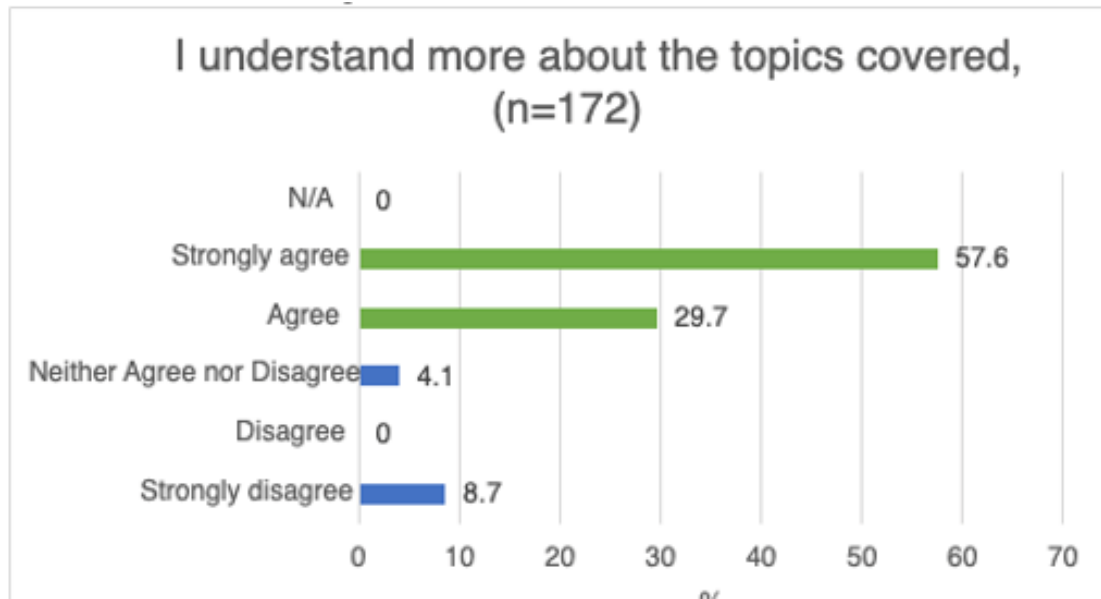


Figure 1.3.a: Percentage of questionnaire responses to the prompt “I understand more about the topics covered.”

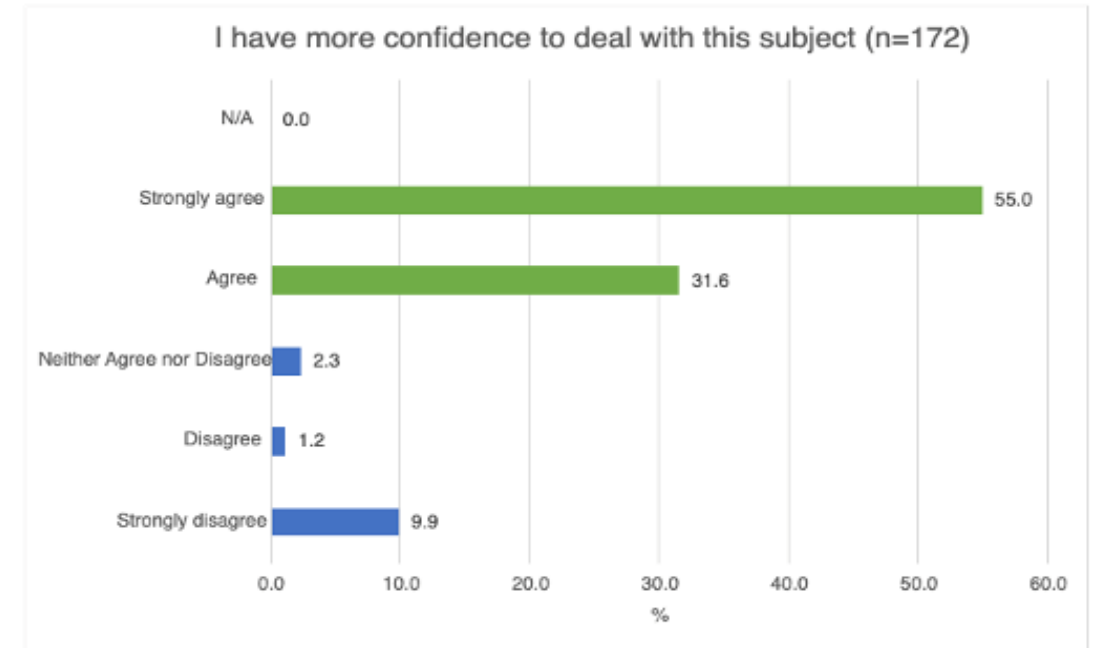


Figure 1.3.b: Percentage of questionnaire responses to the prompt “I have more confidence to deal with this subject.”

RESULTS

Primary Outcomes: Awareness & Understanding of HF Cont.

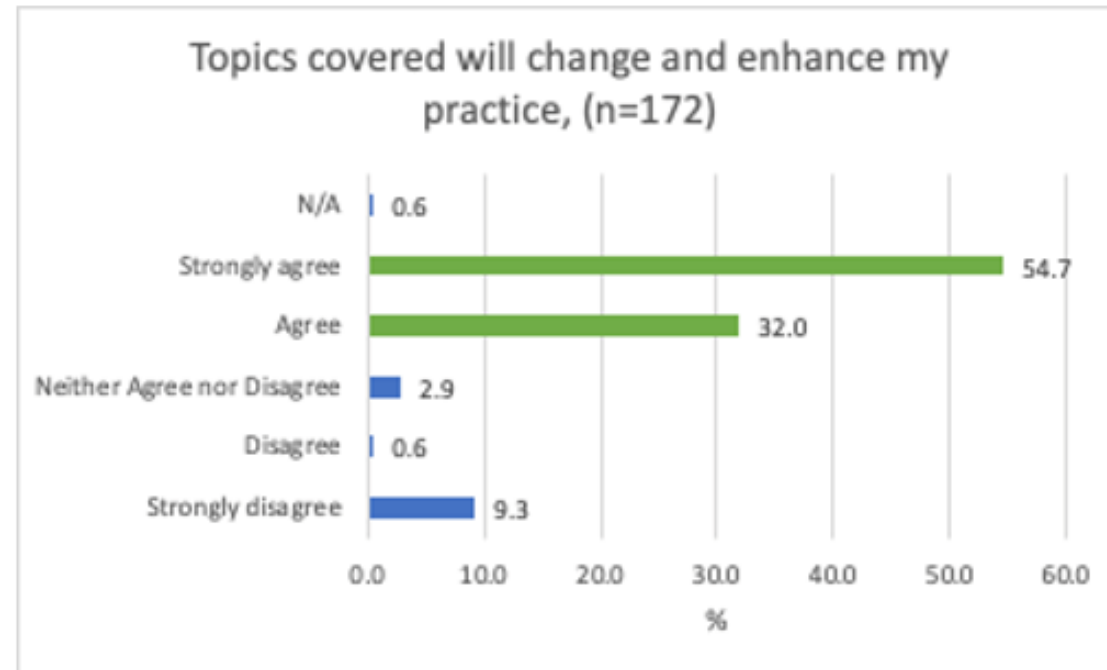
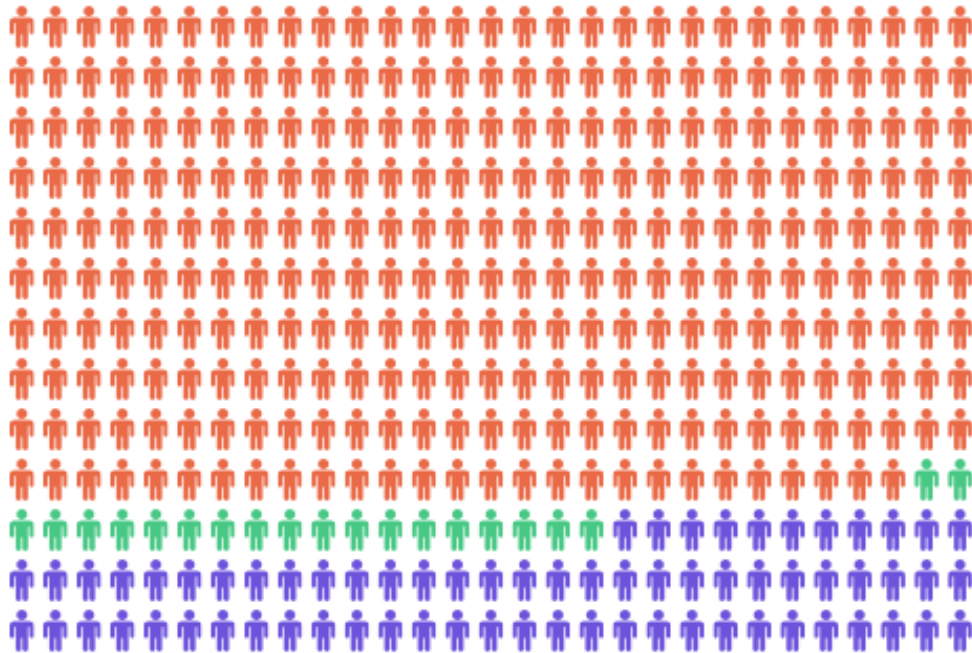


Figure 1.3.c: Percentage of questionnaire responses to the prompt "Topics covered will change and enhance my practice."

RESULTS

Secondary Outcomes: Feasibility

Study Day In-Situ



Doctors 101 Nurses 7 Medical Students 24 Student Nurses 0 QAIHP 0

Study Day In-Situ



Doctors 20 Nurses 103 Medical Students 1 Student Nurses 9 QAIHP 35

RESULTS

Further Job Roles Breakdown

Job Role	Attendance (n= 175)
Doctors	20
Cardiologist	6
Anaesthetist	2
FY1	6
Other	6
Nurse	103
RN	74
Ward Manager	4
Practive Development Nurse	1
Theatre Nurse	24
Student	17
Nursing	9
Medical	1
paramedic	1
ODP	4
ANA	2
Other	35
Healthcare Assistant	24
NA	4
Radiographer	7

■ Discussion and Novel Findings

- The first few QIPs evaluate the use of in-situ-simulation and its benefits in a Beveridge-based healthcare system
- Assessed feasibility of in-situ training (attendance, integration with rotas, reasons for cancellations)
- Shown to improve self-reported confidence in NHS clinical settings across medical and surgical specialities

■ Key Points

- *ISS can be feasible in NHS Trusts to improve non-technical skills*
- *The dynamic nature of ISS facilitates multi-disciplinary participation, which better mimics real-life scenarios*
- *This research project provides a stepping stone for further research into the use of ISS in addressing and training staff on HF and CRM within the NHS*

■ Introducing In Situ Simulation to Improve Teams Communications through Human Factors

Action Plan presented to the Patient Safety Group on 4th April 2024

Recommendation	Action required	Action by date	Lead	Status
Recognition of In-Situ Simulation as a valid Education tool	Managers and Leads cross sites to collaborate with Simulation Team and create a plan for the staff to attend training (at least once a year)	Within 6 months	Aurora /Mark	Not Started
Wards/Departments to have two <i>Simulation and Human Factors Champions</i> within the teams	Recruitment of enthusiastic internal members of the staff to act as direct connection with the Clinical Areas and to provide support with teams needs analysis, projects regarding Simulation in the workplace	End of May	Marco / Aurora	Not Started
Departments to create in-house Training provided by trained Instructors	Nominate at least 3 extra staff member to attend the New In Situ Simulation Instructor Course – Level1	TBC	Aurora / Marco	started
Bi-annual Instructors Meeting	Agreement on two dates per year to evaluate Teams achievements, needs of support, programmes and eventual SBE updates	TBC	Aurora/Marco	Not started