

# Enabling Safety:

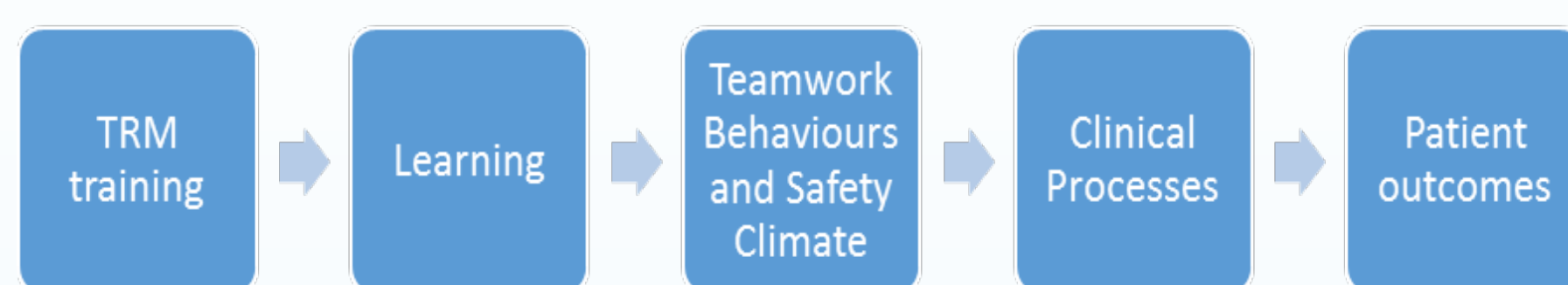
# Development of a Focused Human Factors and Ergonomics Approach in NHS Lanarkshire

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NHS Lanarkshire's ambition is to be the safest Scottish health and social care system. Achieving this requires the organisation and our staff to understand Human Factors and Ergonomics (HFE) science and its application in health care. One of the key components of the 'Lanarkshire Quality Approach' (LQA) is to build capacity and capability in HFE. An HFE education programme, supported by subsequent coaching and utilisation of simulation is being tested.

## Method

Focus group discussions, learning from safety work, mortality and significant adverse event reviews, identified the need to focus on **team working**. A classroom based course, **LQA Team Skills**, provides an **introduction to HFE theory**, including factors affecting individual performance and Team Resource Management and also a 'tool box' of methods to optimise teamwork.



LQA Team Skills 'logo' summarises component topics, starting with the individual, progressing to interactions and team-working



**Multi-professional** teams are encouraged to **attend as teams**, to identify learning which can be applied in their workplace and to subsequently **test these changes**.

Staff complete 'TeamSTEPPS®' questionnaires, are sent a **postcard** as a reminder of changes they intended to test 6 weeks after the course and participate in '**Webexes**' to share learning and to facilitate coaching to support improvement work.



Paper chain exercise used to explore elements of team-working

## LQA Team Skills

In response to feedback, the 2 day course has been refined to **1 day**. The interactive nature of the course and the healthcare based examples are valued. Initially, examples focused on acute health care, however the content continues to develop, with increasing relevance to out of hospital services.

"...it has influenced our daily work ... we try to avoid interrupting others, aim to be more approachable and recalibrate the authority gradient in relationships ... our senior managers are stepping back, increasing situation awareness".  
University Hospital Monklands (UHM) pharmacy team

## So far

6 courses have taken place with 106 attendees. **Teams from across Lanarkshire Health and Social Care** have attended: Mental Health, Immunisation, Home Care, Community Diabetes, Management Accounts, Pharmacy, Stroke Services, Radiology, Cardiac Catheterisation Lab, Theatre, ICU, Surgical and Medical wards, Pharmacy, Physiotherapy, Occupational therapy, GP practice and community support teams.

## Outcomes: subsequent improvement work

Cardiac Catheterisation lab University Hospital Hairmyres are creating a template to use should cardiac arrest occur during percutaneous coronary artery intervention to open communication lines, aid role allocation and task prioritisation, have run a in situ simulated cardiac arrest and plan to develop a 'pause' and a 'sign out' for intubated patients.

Teams have used their learning to improve existing safety briefs and to introduce debriefs at the end of the working day.

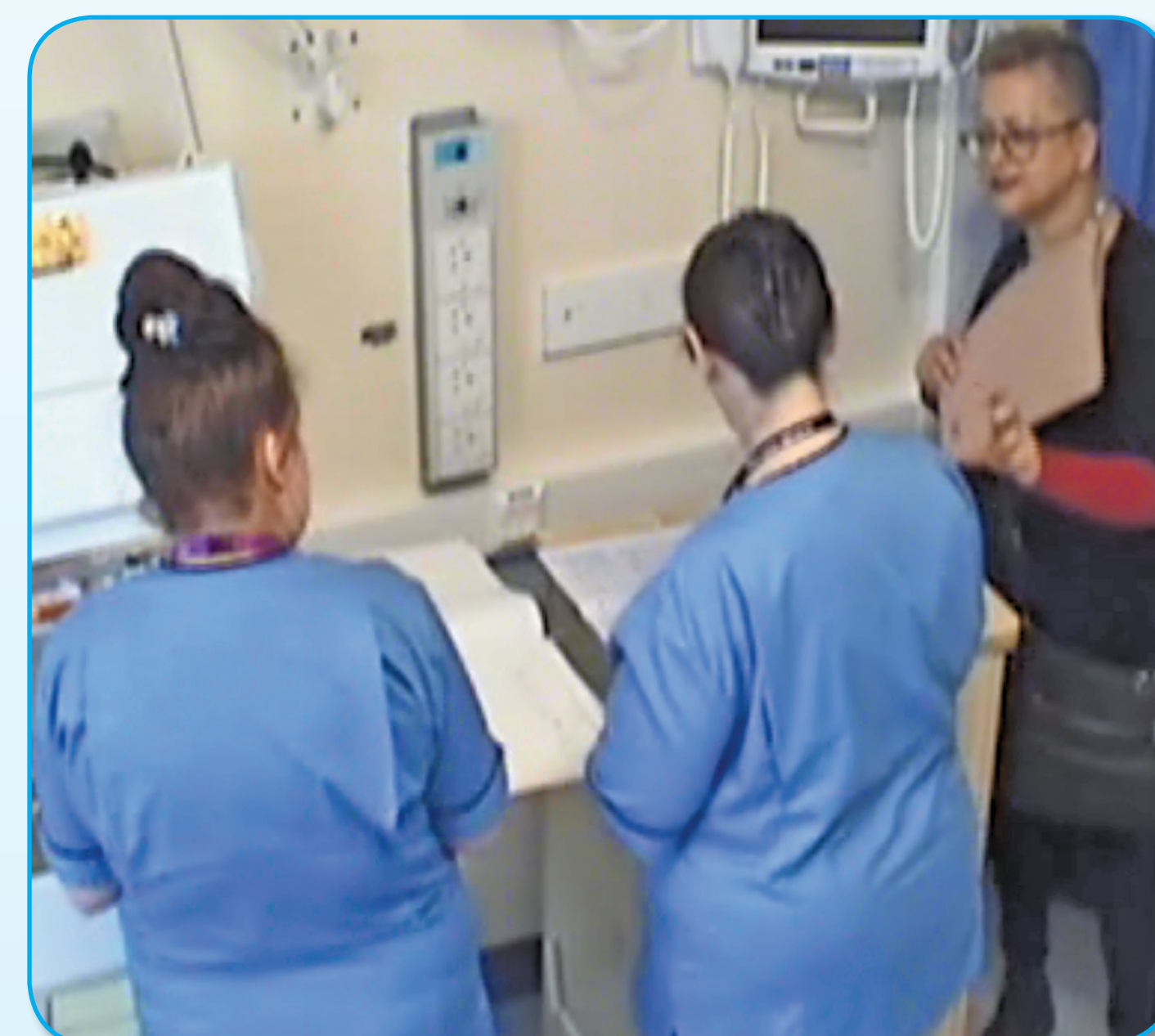


UHM ENT/Maxillofacial ward staff during improved multidisciplinary safety brief



UHM pharmacy department 'structured debrief' has improved feedback and learning

A 'bespoke' simulation programme, '**Team Skills Sim**', which focuses on **interruption** during preparation/administration of drugs and suggests tools to facilitate '**speaking up**', has been developed for a ward team who, recognised an issue with '**authority gradient**'. The 'immersive simulation' evaluated highly and is being spread to other areas.



Immersive simulation: interruption during controlled drug preparation



Team skills simulation: Feedback from attendees

## Conclusions

**Complexity** in the healthcare system results in individuals working in **multiple different teams** and it is well recognised that when analysed, health care teams often do not exhibit characteristics and behaviours associated with optimum performance. **High performing healthcare teams** produce the best outcomes, meeting the quality ambitions in '**2020 Vision**'. Our aim is to replicate reliably in our system, the behaviours of such teams. This programme is supporting the 'Quality Improvement' strategy in NHS Lanarkshire

### References

NHS Lanarkshire - Enabling Safety: Applying LQA to our Vision, 2017 - 2018  
Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS® 2.0)  
Michael A.West: Effective Teamwork Practical Lessons from Organisational Research Third Edition 2012

### Acknowledgements

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