Brighton and Sussex University Hospitals NHS

Reducing risk and Human Factors

Transfusion meeting
17/10/18
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Consultant Neonatologist

With our partners:

KSS NHS Postgraduate Deanery for Kent, Surrey and Sussex

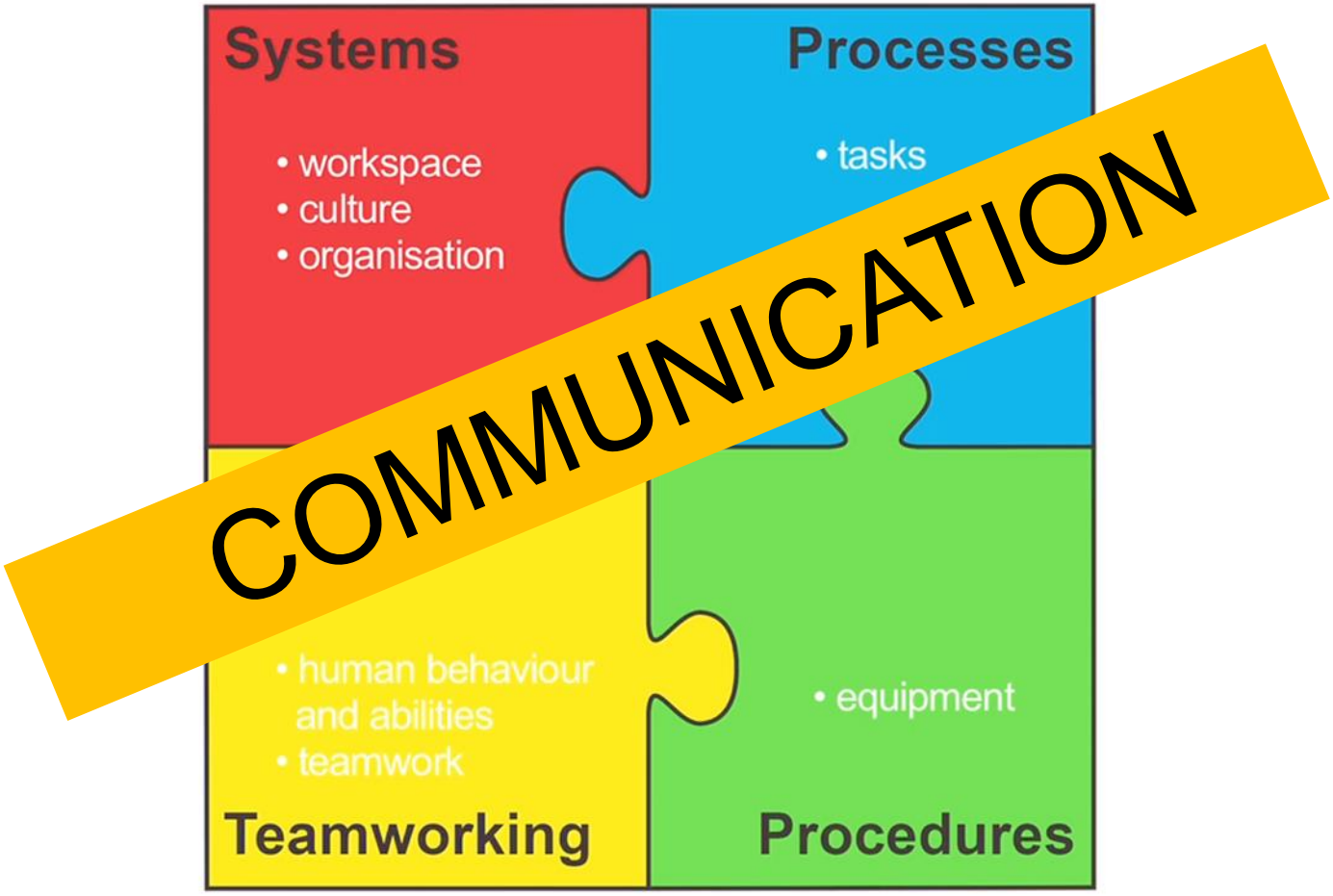
brighton and sussex medical school

Enhancing clinical performance through an understanding of the effects of teamwork, tasks, equipment, workspace, culture, organisation on human behaviour and abilities, and application of that knowledge in clinical settings

Clinical Human Factors Group

Really it is….

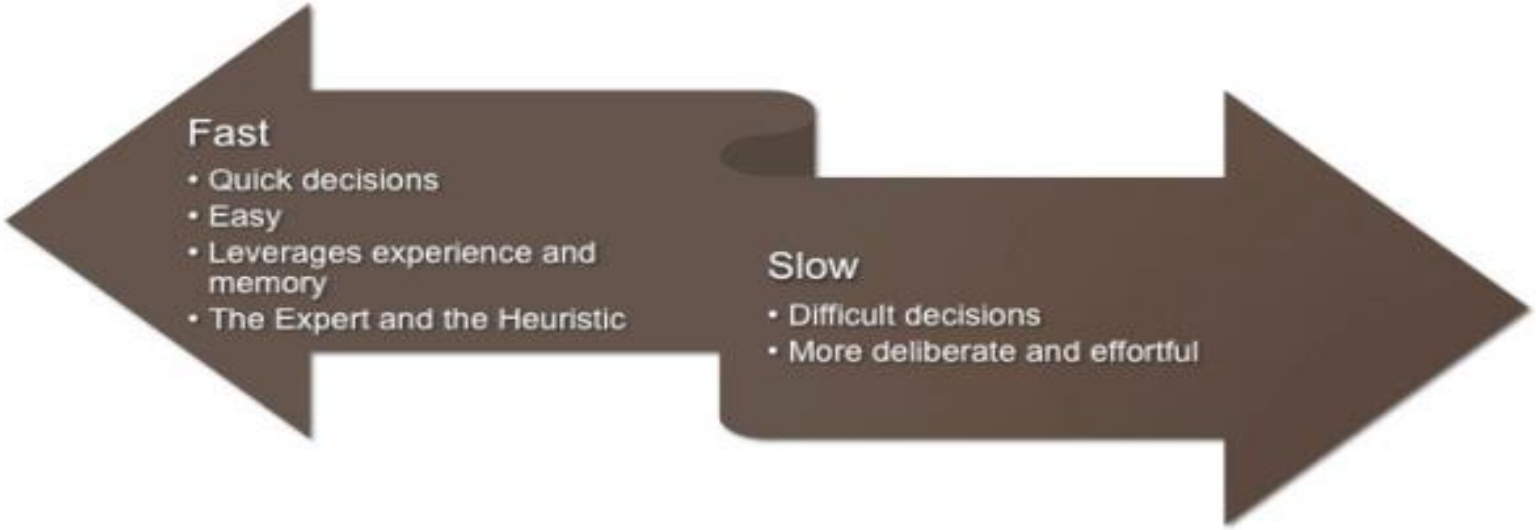
How to reduce the risk of ballsing it up at 3 am when you are knackered and working with people you don't know (or like) in a system that is understaffed and badly designed


Systems
• workspace
• culture
• organisation
Processes
• tasks
COMMUNICATION
• human behaviour and abilities
• teamwork
Teamworking
• equipment
Procedures

Human behaviours and abilities

- How humans think and make decisions
- Culture particularly in relation to error
- Giving feedback
- Practical suggestions

Fast vs Slow Thinking



How humans think

- Distraction /interruption
- Fatigue

How to learn from failure- Black Box Thinking

Progressive attitude to failure- ‘growth mindset’

No blame **culture**

Errors are golden

Barriers:

Attitude to failure

Psychological cost of failing

Cognitive dissonance

Cognitive dissonance

- Studying our own faults is incredible hard
- Natural to spin / reframe
- The higher the stakes the higher the psychological cost of failing
- Culture

Culture- How to build a learning organisation

- **A supportive learning environment**

speaking up , value opposing ideas, able to ask naïve qs

- **Concrete learning process**

Systems, AARs , sharing info, experimenting with ideas

- **Leadership that reinforces learning**

organisation can consider alternative viewpoints, owns up to mistakes, takes risks

Feedback/learning conversations

What ?

So what ?

What now?

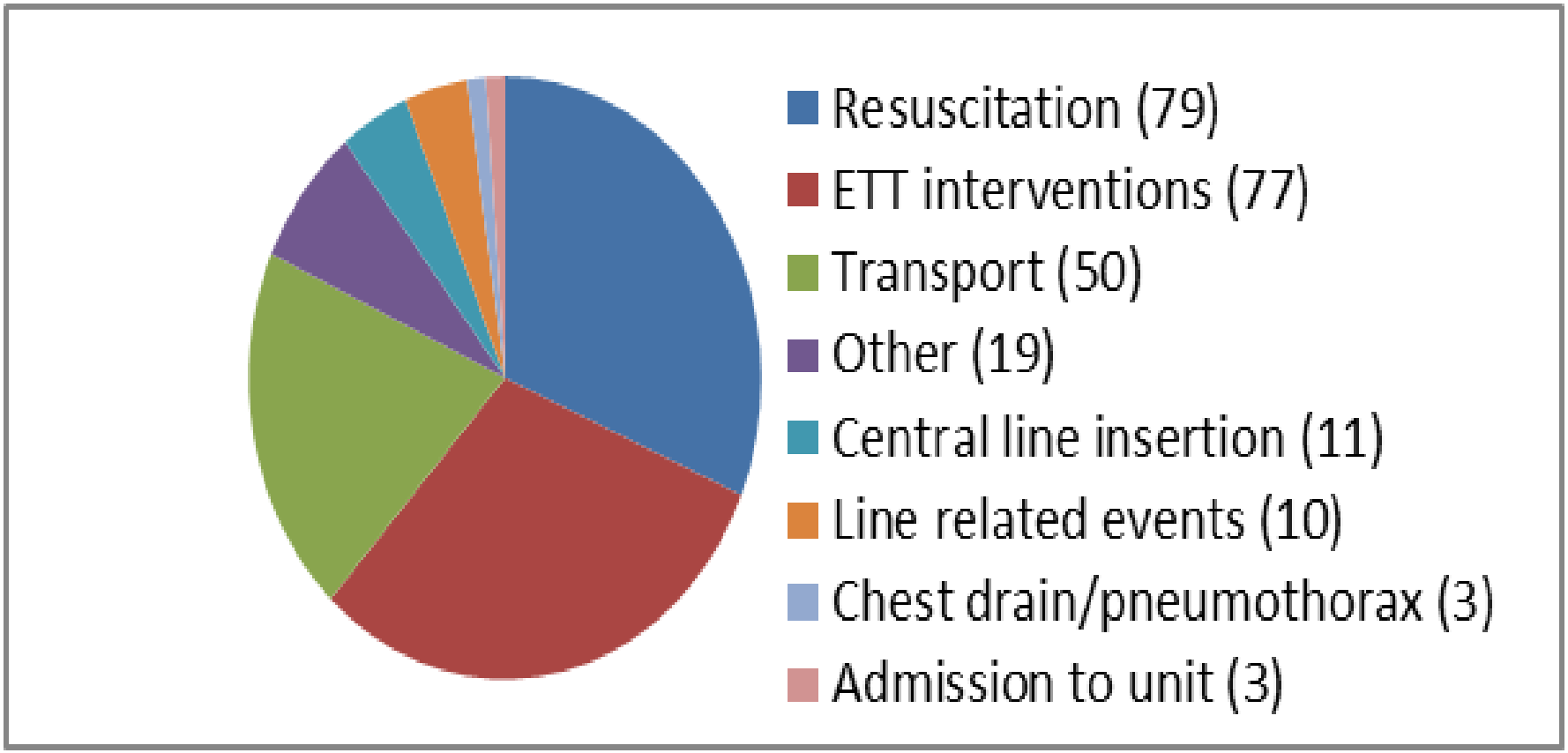
Reducing risk in practice

- Simulation
- HF team – culture
- Safety pauses NICU
- STEPP cards
- Team training- in situ sim

Safety Pauses

- 257(12 months to sept 2018)
- SPs took 4.2 mins each on average . 250 issues identified
- 166 equipment issues
- 107 Environment issues
- 37 other issues

Safety Pauses



Safety S.T.E.P.P card

Intubation & Extubation

Brighton and Sussex University Hospitals NHS Trust
Trevor Mann BABY UNIT

START HERE

Situation checks

- Nurse in charge aware
- Senior doctor aware
- Other Emergencies covered
- Team well-being

Think Problems

- Predicted difficulties?
- Help available and how to contact ?

Equipment checks

Monitor
- Heart Rate
- Saturations
- EtCO2

Cotside
- Neopuff/BVM
- Correct Mask size
- Suction/NG tube
- Oxygen blender
- Resuscitation trolley

Airway kit
- ETT (size +/-1)
- Laryngoscope
  - Bulb check
  - Blade size
- Stylet

Circulation
- IV access flushed
- Drugs prepared?

Prepare

Patient
- Optimise positioning
- Aspirate NG tube

People *(allocate names to roles)*
- Airway
- Assisting
- Giving Drugs
- Timing or scribing

Plan
- Verbalise plan
- What is Plan B and C?
- Team agree to proceed?

Proceed

Please remember a Safety Pause afterwards

Date: 01/11/17 Version 1. TMBU human factors team

Interventions

Streamlining/standardizing processes

- Initiated changing the neonatal crash call posters
- Reintroduced nursing bleep
- Standardisation of resus trolleys
- Neonatal drug doses added to STEPP cards
- Neonatal emergency blood procedure clarified

Equipment issues

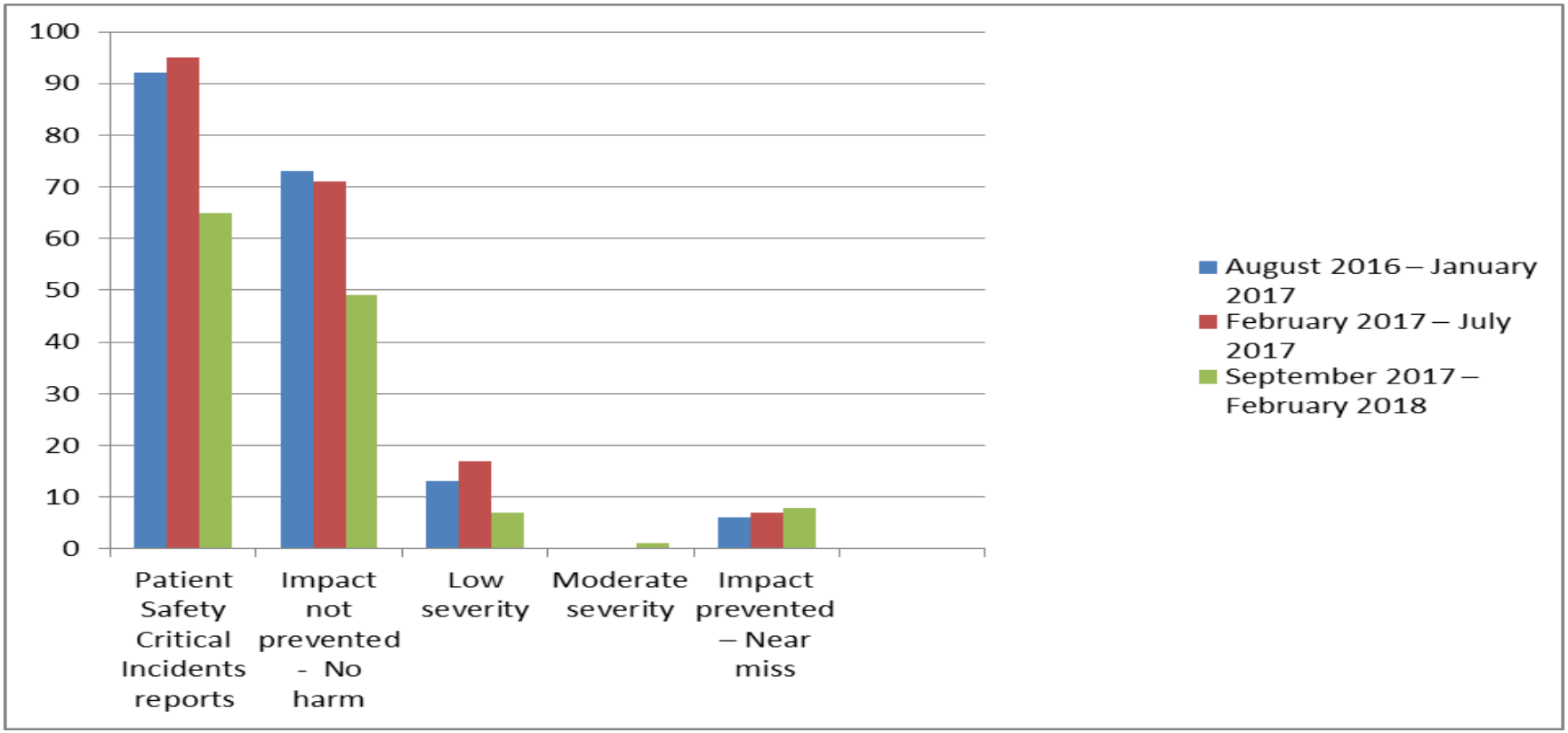
- ETT flange stocking
- Cot monitor stickers in N1

Team Education:

- STEPP cards for intubation
- Shuttle battery education
- Education around O2 blenders

Environment

- N4 procedural area rearrangement
- Theatre temperatures standardised



Since the HF programme started we have seen a consistent 30% reduction in TMBU Datix reported incidents compared to two 6 month periods immediately before the start of the programme. There is a reduction is in reported 'near misses /patient harm/impact not prevented incidents' in particular

Summary

- Understanding how we think can help to reduce risk
- Errors are golden
- Culture Change

Thank you

- Thank you to NICU HF team
- Reading

Black Box Thinking: The Surprising Truth About Success- Matthew Syed

Thinking Fast and Slow – Daniel Kahneman

Being Wrong: Adventures in the Margin of Error Kathryn Schultz

- Video https://www.bsuh.nhs.uk/work-and-learn/training-and-education/courses-open-to-external-delegates/#4
- Podcasts
- SP/STEPP