



# Teamwork in Aeromedical Transfers

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# Acknowledgement of Country

The Royal Flying Doctor Service and St John Ambulance in Western Australia respects and acknowledges the Traditional Owners of the lands upon which we work, live and fly.

We acknowledge their continuing connection to the land, sea and skies of Australia.



# Background | Why Transfer Safety Matters



Aeromedical settings increase risk due to uneven terrain, weather and unfamiliar teams.



36,000 reported clinical incidents in WA in 2022–23; falls were among the most frequent (Department of Health WA, 2023).



52% report patient falls during transfers (Brusco et al., 2023).



20% of stretcher incidents in Incident Management Systems involve a patient fall or near miss (Wang et al., 2010).

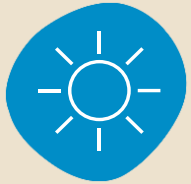


Manual Handling is the leading cause of injury among healthcare workers (Safe Work Australia, 2023).

# Background | Why This Matters in Aeromedical Care



High risk of adverse events during patient handling.



Austere environments amplify risk (heat, uneven terrain, limited staff, no privacy).



Deliberate teamwork improves safety for both employees and the patient.



# Why Shared Language Matters



**Understanding  
across  
organisations**



**Reduces  
communication  
errors**



**Fosters mutual  
respect**

# Team Time Out | Teamwork Under Pressure



Crew Resource Management (CRM): communication, situational awareness, role clarity.

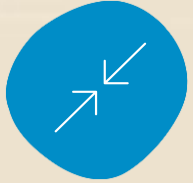


Checklists build shared mental model.

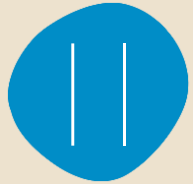


Supports psychological safety.

# Team Time Out | Origins and Principles



Developed to reduce surgical complications.



Pause before critical task: confirm patient, plan, roles, risks.

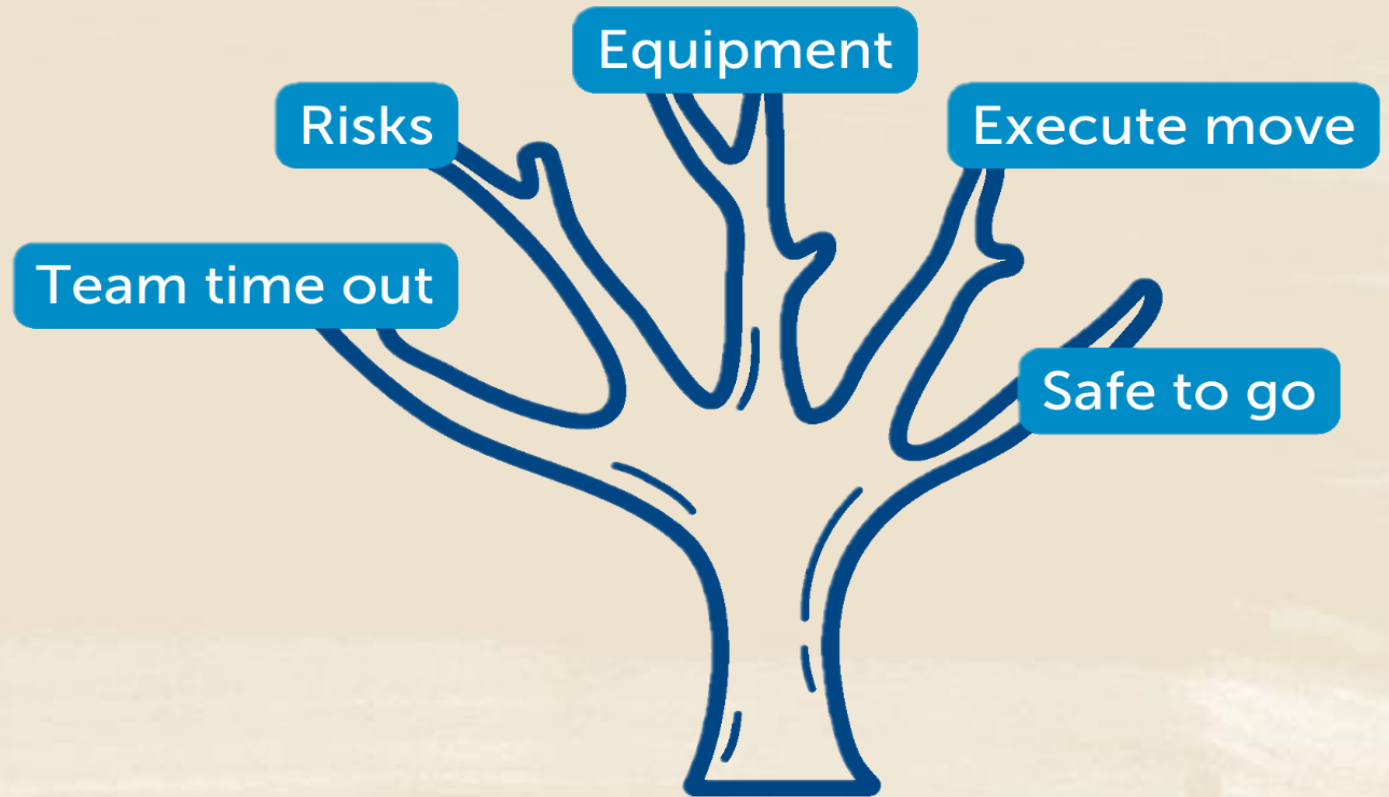


Retrieval is high-stakes - checklist supports **Safety** (World Health Organization, 2009).



# T.R.E.E.S | Adapted Process

- **T**eam Time out
- **R**isks
- **E**quipment
- **E**xecute Move
- **S**afe to Go





# T.R.E.E.S | Implementation Challenges



Supporting literature: Russ et al. (2015); Gillespie et al. (2013); Braithwaite et al. (2009)

# T.R.E.E.S | Implementation

- Education across the state
- Different scope of practice
- Competing priority and focus area for safety
- Example medical transport specialist training

## Country operations

- 📍 Community paramedics  
Support volunteers in surrounding areas
- 📍 Hybrid stations  
Teams include both career paramedics and volunteers
- 📍 Volunteer sub centres  
Team is entirely volunteer, often supported by a Community Paramedic
- ✈️ RFDS BASES



# T.R.E.E.S | Continuous Education at SJWA & RFDSWA



Completed by both career staff and volunteers over 12 months



Awareness of tool and video explanation



Record of course completions



Inclusion in Standard Operating Procedures- RFDS Engagement



# T.R.E.E.S | Using Champions to Embed Practice

## Why they work



- Trusted peer influencers.
- Most effective when embedded in each base or crew.
- Supported with tools, recognition, and training.

## How to implement them



- Identify and support Time Out Champions at each site.
- Include in training and simulation.
- Share success stories that highlight impact.

# T.R.E.E.S | Recommendations

- Executive endorsement & commitment for resources.
- Formalise Time Out in SOPs.
- Champions
- Use laminated cue cards.
- Include in simulation training.
- Cross functional team drills
- Debrief and share lessons.



# T.R.E.E.S | Summary



Transfers are critical moments.



TREES is simple, effective.



Improves safety in austere settings.



# T.R.E.E.S | Q & A



Have you had a challenging  
stretcher transfer ?

What made it safe or unsafe?



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# References

(2023). In Brusco, N., Haines, T., Taylor, N. F., Rawson, H., Boyd, L., Ekegren, C., Kugler, H., Dawes, H., Radia-George, C., Graven, C., & Hill, K. *Australian hospitals and residential aged care facilities, how do we train nursing and direct care staff to assist patients and residents to move? A national survey*. **Australian Health Review**, 47(3), 331–338.

<https://doi.org/10.1071/AH22296>

**Safe Work Australia.** (2023). *Work-related injuries and fatalities: Overview*. <https://www.safeworkaustralia.gov.au>

**Agency for Healthcare Research and Quality.** (2019). *TeamSTEPPS® 2.0 curriculum*.

<https://www.ahrq.gov/teamstepps/instructor/index.html>

**Wang, H. E., Fairbanks, R. J., Shah, M. N., Abo, B. N., & Yealy, D. M.** (2010). *Tort claims and adverse events in emergency medical services*. **Prehospital Emergency Care**, 14(4), 489–494.

**World Health Organization.** (2009). *WHO Surgical Safety Checklist and Implementation Manual*.

[https://www.who.int/patientsafety/safesurgery/tools\\_resources](https://www.who.int/patientsafety/safesurgery/tools_resources) downloaded

**Russ, S. J., Rout, S., Sevdalis, N., Moorthy, K., Darzi, A., & Vincent, C.** (2015). *Do safety checklists improve teamwork and communication in the operating room? A systematic review*. **Annals of Surgery** 261(6), 935–945.

**Gillespie, B. M., Chaboyer, W., & Fairweather, N.** (2013). *Interruptions and miscommunications in surgery: An observational study*. **AORN Journal**, 97(3), 370–376.

# References

**Braithwaite, J., Clay-Williams, R., Vecellio, E., Marks, D., Hooper, T., Westbrook, M., & Westbrook, J. (2009).** *The basis of clinical handover in rural health services. Australian Journal of Rural Health, 17(5), 265–270.*

**Dogherty, E. J., Harrison, M. B., Baker, C., & Graham, I. D. (2012).** *Following a natural experiment of guideline adaptation and early implementation: A mixed-methods study of facilitation. Implementation Science, 7(1), 9.*

**Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009).** *Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. \*Implementation Science\*, 4(1), 50.*

**Ploeg, J., Davies, B., Edwards, N., Gifford, W., & Miller, P. E. (2014).** *Factors influencing best-practice guideline implementation: Lessons learned from administrators, nursing staff, and project leaders. Worldviews on Evidence-Based Nursing, 11(2), 89–99.*

1. WHO (2009). Surgical Safety Checklist
2. Runciman et al. (2007). Quality in Australian Health Care Study
3. ACSQHC (2021). NSQHS Standards (2nd Ed.)
4. Flin R (2008). Safety at the Sharp End
5. RFDS (2023). Remote Health and Safety Report
6. NSW Health (2014). Manual Handling Guidelines