

# Multidisciplinary teamwork, leadership and TeamSTEPPS™ Towards a Culture of Continuous Improvement

First experiences in cardio-thoracic surgical teams in UMC Groningen.

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## Background

Optimal teamwork in multidisciplinary teams provide a safety-net for (near) medical errors. Structured team communication tools and strategies, e.g. SignOut (SO) and Debriefing (DB) enable teams in continuous learning from (near) errors. In 2012 the UMC Groningen started the implementation of SO/DB in the Cardio-Thoracic peri-operative teams based on the Dutch version of the evidence based **TeamSTEPPS™** curriculum (AHRQ/DoD): '**TeamSHOPP**'\*.

## Focus & Aim

Implementation focus: sustainable improvement of patient safety by creating a culture of continuous improvement by:

- Enhancing mono- and multidisciplinary team climate
- Optimizing teamwork knowledge, skills and attitudes
- Development of (medical) leadership
- Implementation of SO/DB
- Sustainment strategies.

Primary aim: 100% adaption to SO and (if applicable) DB during operation room (OR) sessions



## Methods

Multidisciplinary quality improvement intervention based on two integrated programs:

### A TeamSTEPPS™ curriculum:

- Tailored process redesign SO/DB.
- Train-the-trainer/coach-the-coach program.
- Multidisciplinary training on SO/DB for all team members: 2x105 minutes training session, including SO and DB simulation (max 15persons / session).
- Follow-up training: feedback skills.

### B Leadership program physicians and OR management:

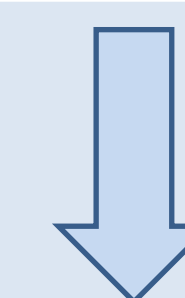
- Individual 360 feedback assessment on attitude and behaviour (Human Synergistic-Lifestyle Impact Inventory™).
- Individual and team coaching.

## Conclusions

We report the first implementation of (the Dutch version of) TeamSTEPPS™ combined with a medical leadership development program in a high complex perioperative healthcare organization. Initial experience indicates that it is feasible to train relevant knowledge, skills and attitudes in relative short training interventions, including specific process simulation (SO/DB), supported by leadership development of doctors and OR managers. Initial feedback and observed attitude suggest positive effects on SO/DB adaptation and team behaviour. On-going measurements (e.g. team climate, teamwork attitude) will reveal more on effect and sustainability of these combined interventions.

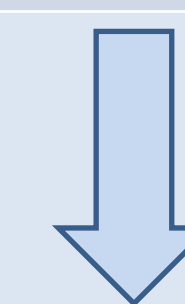
## Phase 1: Diagnosis

- Analysis of improvement opportunities and barriers
- Assessment critical success factors
- Improvement Plan
- Engagement and support.



## Phase 2: Planning, Training & Implementation

- Mono- & multidisciplinary interventions
- Start implementation SO/DB.

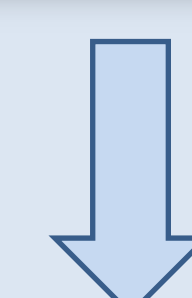
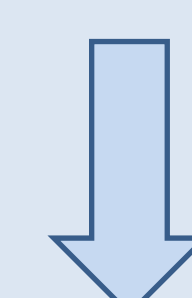
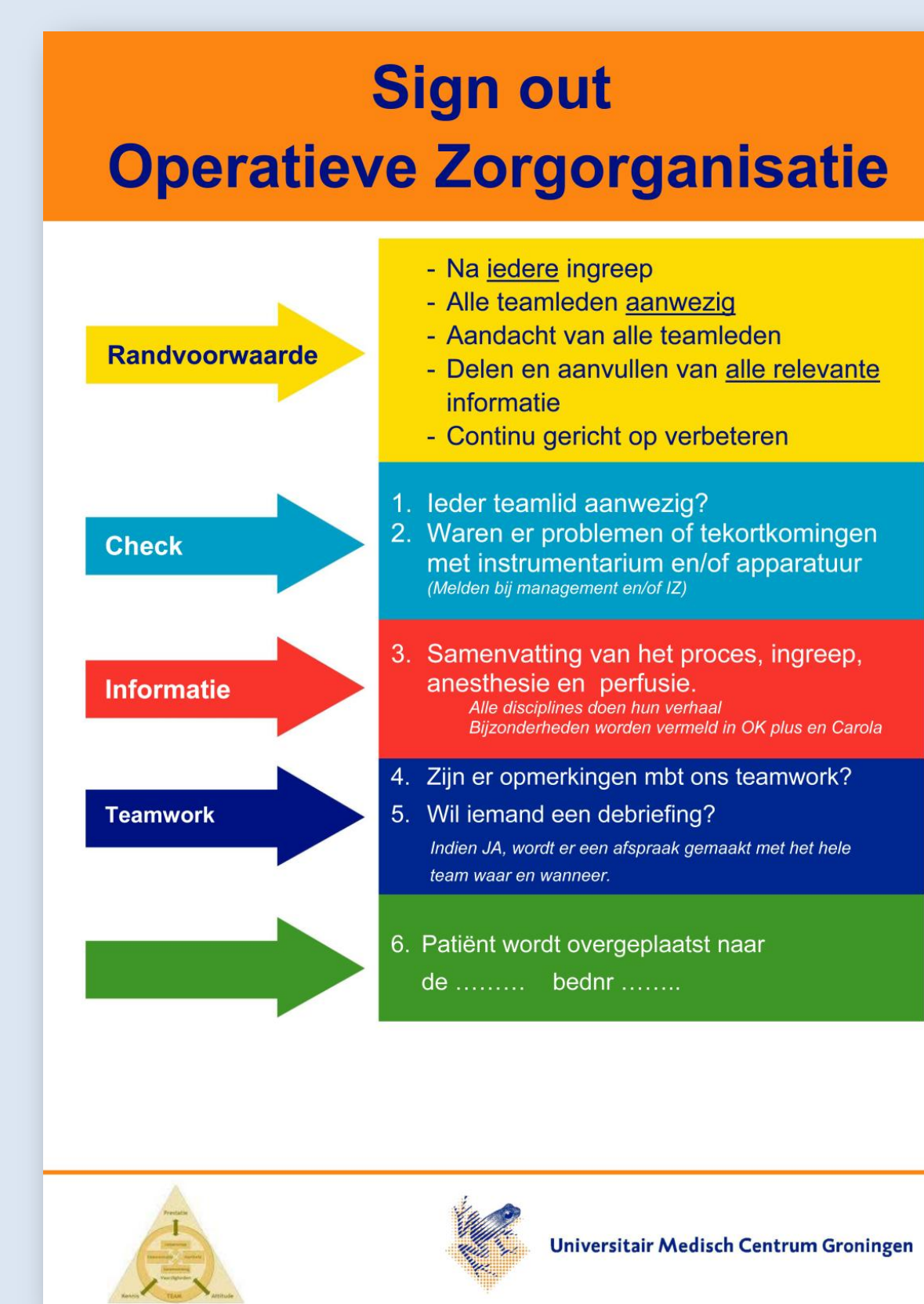


TeamSHOPP training

Leadership development

Cultural change

&



## Phase 3: Sustainability

- Periodic monitoring/measurement: quality, process redesign and culture
- Continuous development (individual and team) teamwork and (medical) leadership
- Follow-up training.

## On-going research

### A Process evaluation study

- Periodical effect measurements (Kirkpatrick Levels 1-3):
- Teamwork Attitude Questionnaire
- Teamwork Assessment Questionnaire
- Training Evaluation Forms
- Observations and interviews
- % implementation of SO/DB.

(Scientific reporting: 2013/14).

## Lessons learned

- Monodisciplinary team development can serve as primer for multidisciplinary teamwork training.
- Attitude and behaviour of doctors during multidisciplinary training sessions seem critical success factors for creating (a) team member support and (b) safe 'learning-climate'.
- Involvement and engagement of physicians during all implementation phases should not be underestimated and can be increased using evidence based methods.
- 'Bottom up' change, needs strong leadership in the 'top'.
- Creating a sustainable 'culture of sustained continuous improvement' entails:
  - (a) change in attitude & behaviour on all levels and
  - (b) initial improvement cycle of approximately 1,5 year.

## Information

### TeamSHOPP

NL: [www.TeamSHOPP.nl](http://www.TeamSHOPP.nl) / [www.CBO.nl](http://www.CBO.nl)  
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\*TeamSHOPP: Team Strategieën en Hulpmiddelen voor het Optimaliseren van Prestaties en Patiëntveiligheid.

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Reported potential conflict of interest: Wouter Keijser works as independent TeamSTEPPS™ Master Trainer.