Effectiveness, neuropsychological distress, teamwork, and ergonomics with procedures conducted in the i-Suite surgical environment

	[X] Prospectively registered
No longer recruiting	☐ Protocol
Overall study status	Statistical analysis plan
Completed	Results
Condition category	Individual participant data
Surgery	Record updated in last year
	Completed Condition category

Plain English summary of protocol

Not provided at time of registration

Contact information

Type(s)

Scientific

Contact name

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Contact details

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

ukb 6.1 2008

Study information

Scientific Title

Acronym

ENTERPRISE

Study objectives

A novel, integrated operating theatre environment (i-Suite^m, Stryker) reduces the average or time in trauma, orthopaedic, and visceral procedures (i.e., the time interval from the patient's entry to discharge from the theatre) compared to a modern, conventional operating room by 20 \pm SD 50 minutes (equating a moderate Cohen's effect size of 0.4 = 20/50).

Ethics approval required

Old ethics approval format

Ethics approval(s)

Institutional Review Board of the Charité University Medical Center. Date of approval: 06/02/2008 (ref: EA1/004/08)

Study design

Single-centre, randomised controlled trial.

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Not specified

Study type(s)

Treatment

Participant information sheet

Health condition(s) or problem(s) studied

All elective orthopedic and/or trauma, or visceral surgical procedures.

Interventions

Experimental intervention:

General orthopedic (e.g., total joint replacement), trauma, and surgical procedures (e.g., fracture fixation, abdominal and thoracic surgery) conducted in one of two integrated i-Suite operating theatres.

Control intervention:

A similar range of procedures, conducted in a conventional, last-generation operating theatre.

Intervention Type

Procedure/Surgery

Phase

Not Specified

Primary outcome measure

Time interval from the patient's entry to discharge from the operating theatre.

Secondary outcome measures

- 1. Team-centered endpoints, recorded during operation:
- 1.1. Stress of surgeons, anaesthetists, and scrub nurses in charge, as measured by short questionnaire assessments and biological markers in saliva (cortisol and beta-endorphine) immediately before and after surgery
- 1.2. Quantity and quality of distracting events (e.g., phone calls, door openings, technical failures) that may prolong or compromise the procedure
- 1.3. Comfort and climate (e.g., space, noise, and others)
- 1.4. Perceived success of the procedure
- 1.5. Team interaction
- 2. Patient-centered endpoints:
- 2.1. Critical incidents, intra- and post-operative complications, monitored during hospital stay until discharge
- 2.2. Quality of Life (EuroQol [EQ5D]) questionnaire at baseline, discharge and 6 months after surgery (by post)

Overall study start date

01/05/2008

Completion date

01/05/2009

Eligibility

Key inclusion criteria

- 1. Consecutive patients >=18 years of age scheduled for orthopedic and/or trauma, or visceral surgery on weekdays between 8.00 am and 4.00 pm (core working hours)
- 2. Full ability to provide written informed consent
- 3. Both men and women

Participant type(s)

Patient

Age group

Adult

Lower age limit

18 Years

Sex

Not Specified

Target number of participants

"Intent to treat" (ITT) population: 2 x 200 patients

Key exclusion criteria

- 1. Acute, emergency, or life-saving surgery
- 2. Refusal of trial participation

Date of first enrolment

01/05/2008

Date of final enrolment

01/05/2009

Locations

Countries of recruitment

Germany

Study participating centre

Department of Orthopaedic and Trauma Surgery

Berlin Germany 12683

Sponsor information

Organisation

Unfallkrankenhaus Berlin Trauma Center (Germany)

Sponsor details

Warener Str. 7 Berlin Germany 12683 dirk.stengel@ukb.de

Sponsor type

Hospital/treatment centre

Website

http://www.ukb.de

ROR

https://ror.org/011zjcv36

Funder(s)

Funder type

Hospital/treatment centre

Funder Name

Unfallkrankenhaus Berlin Trauma Center (main funding body) (Germany)

Funder Name

Additional funding will be sought from Stryker (Germany)

Results and Publications

Publication and dissemination plan

Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration