Comparison of the response observed in the dominant and non-dominant hands when assessing neuromuscular block using the TOF-Watch® SX

	☐ Prospectively registered
30/09/2009 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

Ms Rosemary Hogg

Contact details

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Additional identifiers

Protocol serial number

RGHT000353

Study information

Scientific Title

Comparison of neuromuscular monitoring in the dominant and non-dominant hand using the TOF-Watch® SX: a single-centre randomised controlled trial

Study objectives

Is there a difference in the response observed between the dominant and non-dominant hand when using acceleromyography to monitor neuromuscular blockade?

Ethics approval required

Old ethics approval format

Ethics approval(s)

Health and Social Care Research Ethics Committee (HSC REC 3) (Northern Ireland), 23/07/2009, ref: 07/NIR03/1

Study design

Randomised controlled single-centre trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Routine surgery/neuromuscular block

Interventions

After pre-oxygenation, all patients will receive a standard anaesthetic regimen consisting of intravenous infusions of propofol (0.1 - 8.0 μ g/ml) and remifentanil (0.1 - 1.0 μ g/kg/min) for induction and maintenance of anaesthesia. After induction, monitoring will be commenced on both arms using the TOF-Watch® SX. The monitors will be applied to the skin over the ulnar nerve at the wrist and calibrated according to Good Clinical Research Practice guidelines. After stabilisation of the TOF-Watch® SX trace in both arms, rocuronium (0.6 mg/kg) will be administered, following which tracheal intubation will be performed.

Surgery will be continued as normal with monitoring continuing until extubation. Reversal with neostigmine will be performed as required.

Intervention Type

Procedure/Surgery

Phase

Not Applicable

Primary outcome(s)

Time to return of TOF (train-of-four) ratio to 0.9

Key secondary outcome(s))

- 1. Tme to onset of block
- 2. Time to return of T1 to 25%

Completion date

01/04/2009

Eligibility

Key inclusion criteria

- 1. American Society of Anaesthesiologists (ASA) grade I III
- 2. Aged 18 65 years, either sex
- 3. Undergoing planned, elective surgery

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Upper age limit

65 years

Sex

Αll

Key exclusion criteria

- 1. Patients with known neuromuscular disease
- 2. Patients on medication known to interact with neuromuscular blocking agents
- 3. Pregnancy
- 4. Patients with known allergy to neuromuscular blocking agents
- 5. Patients with a known or suspected risk of difficult intubation

Date of first enrolment

01/04/2008

Date of final enrolment

01/04/2009

Locations

Countries of recruitment

United Kingdom

Northern Ireland

Study participating centre Queens' University Belfast Belfast United Kingdom BT12 6BJ

Sponsor information

Organisation

Belfast Health and Social Care Trust (UK)

ROR

https://ror.org/02tdmfk69

Funder(s)

Funder type

Government

Funder Name

Belfast Health and Social Care Trust (UK) (ref: RGHT000353)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not provided at time of registration

Study outputs

Output type Details Date created Date added Peer reviewed? Patient-facing?

Participant information sheet 11/11/2025 No Yes