Supplemental Digital Form 1

Reviewer initials _____ Date of data abstraction _____ Study ID # _____ Last name _____

IRB Approval [ ] Y [ ] N [ ] Not described

Population studied (check all that apply):
[ ] Medical student [ ] PGY-1 [ ] PGY-2 [ ] PGY-3 [ ] Fellow [ ]
Attending/consulting physician
[ ] Nurses [ ] Physician Assistants [ ] Other [ ] [ ] Not described

Specialty of Learners (check all that apply):
[ ] Critical Care [ ] Internal Medicine [ ] Surgery [ ]
[ ] Emergency [ ] Not mentioned [ ] Other [ ]

Baseline Experience of Trainees: [ ] Not mentioned

Instructor level of training (check all that apply):
[ ] Medical student [ ] PGY-1 [ ] PGY-2 [ ] PGY-3 [ ] Fellow [ ]
Attending/consulting physician
[ ] Nurses [ ] Physician Assistants [ ] Other [ ] [ ] Not described

Specialty of Instructors (check all that apply):
[ ] Critical Care [ ] Internal Medicine [ ] Surgery [ ]
[ ] Emergency [ ] Not mentioned [ ] Other [ ]

Design of Study
[ ] Case Control [ ] cross-sectional
[ ] Single group (check one of the following: [ ] before / after study, [ ]
time series)
[ ] Cohort (check one of the following: [ ] Prospective [ ] Retrospective [ ] not
mentioned)
[ ] Trials (check one of the following: [ ] randomized [ ] pseudo/non-
randomized),

Setting:
[ ] Hospital [ ] Educational facility [ ] Not described [ ] Other [ ]

Country/countries:
[ ] Single Centre [ ] Multiple Centres (how many ________)

Type of simulation used (check all that apply):
partial task trainers  standardized patients  full body task trainers
high fidelity mannequins  virtual reality  computer software

Other: ____________________

Description of educational program
Class/group size _______ not described
Instructor: learner ratio _____/_____ not described
Learner: simulator ratio _____/_____ not described
Didactic Portion □ Y □ N not described Duration: __________
  Content of didactic portion:

Format of didactic portion:
Mentioned Demonstration of technique: □ Y □ N □ Not described  Duration:
Mentioned Practice time: □ Y □ N □ Not described  Duration:
Mentioned Feedback: □ Y □ N □ Not described  Duration:
Mentioned Taught Ultrasound: □ Y □ N □ Not described  Duration:
Mentioned Curriculum Integration: □ Y □ N □ Implied □ Not described
Is there a range in Difficulty Level? □ Y □ N □ Not described
  If Yes, please describe:

Are there multiple learning strategies? □ Y □ N □ Not described
  If Yes, please describe:

Sites taught: □ IJ □ SC □ Fem □ Not mentioned □ Right □ Left
Sites tested: □ IJ □ SC □ Fem □ Not mentioned □ Right □ Left
Ultrasound tested: □ Y □ N

Description of Control group Educational Strategy:

Number of subjects  Total invited to study _____________________ Total participated ____________________
  In intervention arm ___________   In control arm ___________

Co-intervention (if yes, please describe)
  Co-intervention in Simulation Group □ Yes □ No
  Co-intervention in Control Group □ Yes □ No
Timeline of Educational curriculum:
Over how long ________________
Same time line for control group? ☐ Yes ☐ No  If not, please describe timeline
Follow-up duration

Outcome Domains Assessed:
☐ User Satisfaction
☐ Acquisition
☐ Retention (if so, how long)_______________
Scale used & Results:

☐ Confidence
☐ Acquisition
☐ Retention (if so, how long)_______________
Scale used & Results:

☐ Knowledge
☐ Acquisition
☐ Retention (if so, how long)_______________
Scale used & Results: Scale validated? ☐ Y ☐ N

☐ Performance Measures
☐ On live patients ☐ On Simulators ☐ Both ☐ Other
☐ Number of Evaluators: ___________ Who are evaluators: ________________
Evaluator blinded ☐ Y ☐ N

☐ Time:
☐ Errors:
☐ Success rates:
☐ Other:

Scale(s) used (please list all):
Scale(s) validated? □ Y □ N

☐ Acquisition    ☐ Retention (if so, how long) _____________
☐ Transfer (if so, how is transfer tested?)

Results:

☐ Clinical Measures – how long are outcomes followed? ________________
☐ Infection
☐ Pneumothorax
☐ Hemothorax
☐ Arterial puncture
☐ Bleeding
☐ Clot
☐ Other ____________________________

Patients intubated ☐ Y □ N □ Not described    Type of patients
___________________________

How are outcomes captured?

Who captured outcomes?
MERSQI
Reed DA. JAMA 298(9):1002-9; 2007

Study Design
- Single group cross-sectional or single group posttest only
- Single group pretest and posttest
- Nonrandomized, 2 group
- Randomized controlled trial

Sampling
- Number of institutions studied
  - 1
  - 2
  - >2
- Response rate, %
  - Not applicable
  - < 50 or not reported
  - 50-74
  - ≥75

Type of data
- Assessment by study participant
- Objective measurement

Validity of evaluation instrument
- Internal structure
  - Not applicable
  - Not reported
  - Reported
- Content
  - Not applicable
  - Not reported
  - Reported
- Relationship to other variables
  - Not applicable
  - Not reported
  - Reported

Data Analysis
- Appropriateness of analysis
  - Data analysis inappropriate for study design or type of data
  - Data analysis appropriate for study design and type of data
- Complexity of analysis
  - Descriptive analysis only
  - Beyond descriptive analysis
- Outcomes
  - Satisfaction, attitudes, perceptions, opinions, general facts
  - Knowledge, skills
  - Behaviors
  - Patient/health care outcome