

## APPENDIX S1



### UNIVERSITY OF ALBERTA

#### Procedural Skills Training in Emergency Medicine Physicians within the Edmonton Zone: A Needs Assessment

If you choose to decline to answer a particular question, simply leave it blank and continue to complete the questions you are comfortable answering.

#### PART A: DEMOGRAPHICS

1. What is your age in years?  
\_\_\_\_\_
2. What is your sex?
  - Male
  - Female
  - Other: \_\_\_\_\_
  - Prefer not to answer
3. What is your postgraduate residency qualification?
  - CCFP
  - CCFP-EM
  - FRCPC –EM
  - Other: \_\_\_\_\_
4. In what country did you complete your residency training?
  - Canada
  - United States
  - Other (please specify): \_\_\_\_\_
5. How many years have you been in practice since graduation from residency?
  - ≤5 years
  - 6-10 years
  - 11-20 years
  - >20 years
6. Which hospital(s) do you work the majority of your shifts at?
  - Tertiary sites (University of Alberta Hospital, Royal Alexandra Hospital)
  - Urban community sites (Grey Nuns Community Hospital, Misericordia Community Hospital, Northeast Community Health Centre, Sturgeon Community Hospital, West View Health Centre)
  - Rural community sites (Devon General Hospital, Fort Saskatchewan Community Hospital, Leduc Community Hospital, Strathcona Community Hospital)
7. In a typical month, how many emergency medicine shifts do you work?
  - <5
  - 6-10
  - 11-15
  - >15



**Question 2. How important do you think this procedural skill is in your practice of emergency medicine?**

**CRITICAL CARE PROCEDURES**

	Very unimportant	Somewhat unimportant	Neither important nor unimportant	Somewhat important	Very important
Adult endotracheal intubation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arterial line insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central line insertion (landmark technique)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central line insertion (US guided)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chest tube insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cricothyroidotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency department thoracotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pediatric endotracheal intubation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pericardiocentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transvenous pacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intraosseous line insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**OTHER PROCEDURES**

	Very unimportant	Somewhat unimportant	Neither important nor unimportant	Somewhat important	Very important
Arthrocentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compartment pressure measurement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corneal foreign body removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Escharotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extensor tendon repair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FAST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lateral canthotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Posterior nasal pack for epistaxis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional nerve block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suprapubic bladder catheterization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thoracentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upper airway foreign body removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vaginal delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Question 3. How confident do you feel when performing this procedure independently?**

**CRITICAL CARE PROCEDURES**

	Very unconfident	Somewhat unconfident	Neither confident nor unconfident	Somewhat confident	Very confident
Adult endotracheal intubation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arterial line insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central line insertion (landmark technique)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central line insertion (US guided)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chest tube insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cricothyroidotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency department thoracotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pediatric endotracheal intubation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pericardiocentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transvenous pacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intraosseous line insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**OTHER PROCEDURES**

	Very unconfident	Somewhat unconfident	Neither confident nor unconfident	Somewhat confident	Very confident
Arthrocentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compartment pressure measurement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corneal foreign body removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Escharotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extensor tendon repair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FAST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lateral canthotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Posterior nasal pack for epistaxis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional nerve block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suprapubic bladder catheterization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thoracentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upper airway foreign body removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vaginal delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART C: CURRICULUM DEVELOPMENT**

**Question 1. How do you currently maintain competence in procedural skills? Select all that apply.**

- Repeated clinical practice
- Observation (clinical, peer consult, reading, video review)
- Simulation
- Formal courses (e.g. AIME)
- Other, please specify: \_\_\_\_\_
- No method

**Question 2. If there were access to regular procedural simulation training in this particular skill, how frequently would you want simulation practice to maintain competence?**

	Never	Every 6 months	Every 12 months	Every 24 months	Greater than every 24 months
Adult endotracheal intubation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arterial line insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arthrocentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central line insertion (landmark technique)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central line insertion (US guided)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chest tube insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compartment pressure measurement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corneal foreign body removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cricothyroidotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency department thoracotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Escharotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extensor tendon repair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FAST	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intraosseous line insertion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lateral canthotomy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pediatric endotracheal intubation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pericardiocentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Posterior nasal pack for epistaxis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional nerve block	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suprapubic bladder catheterization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thoracentesis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transvenous pacing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upper airway foreign body removal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vaginal delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Question 3. If you could choose the content of a procedural skills curriculum, please rank the top six procedures you would include in the curriculum?**

Adult endotracheal intubation	<input type="checkbox"/>
Arterial line insertion	<input type="checkbox"/>
Arthrocentesis	<input type="checkbox"/>
Central line insertion (landmark technique)	<input type="checkbox"/>
Central line insertion (US guided)	<input type="checkbox"/>
Chest tube insertion	<input type="checkbox"/>
Compartment pressure measurement	<input type="checkbox"/>
Corneal foreign body removal	<input type="checkbox"/>
Cricothyroidotomy	<input type="checkbox"/>
Emergency department thoracotomy	<input type="checkbox"/>
Escharotomy	<input type="checkbox"/>
Extensor tendon repair	<input type="checkbox"/>
FAST	<input type="checkbox"/>
Intraosseous line insertion	<input type="checkbox"/>
Lateral canthotomy	<input type="checkbox"/>
Pediatric endotracheal intubation	<input type="checkbox"/>
Pericardiocentesis	<input type="checkbox"/>
Posterior nasal pack for epistaxis	<input type="checkbox"/>
Regional nerve block	<input type="checkbox"/>
Suprapubic bladder catheterization	<input type="checkbox"/>
Thoracentesis	<input type="checkbox"/>
Transvenous pacing	<input type="checkbox"/>
Upper airway foreign body removal	<input type="checkbox"/>
Vaginal delivery	<input type="checkbox"/>

**Question 4. If a procedural skills course were offered, what would be the preferred length of the course?**

- Half a day                       Full day                       Two days

**Question 5. Are there any other procedures that you feel are important but were omitted from the original list? Please specify.**

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**Question 6. Have you participated in a formal procedural skills course in the last two years?**

- No                                               Yes

**If yes, which course did you participate in?**

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**Questions 7. What are some of your personal barriers to participation in a procedural skills curriculum? Check all that apply.**

- Cost
- Availability of courses
- Time
- Lack of support from department site

Other: \_\_\_\_\_

**Questions 8. What are some of the facilitating factors to participation in a procedural skills curriculum? Check all that apply.**

- CME credit
- Financial support
- On site location of course
- Academic promotion
- Other: \_\_\_\_\_

## APPENDIX S2

**Table 1. Associations between Edmonton zone emergency physician years of practice, perceived importance, desired frequency, frequency performed, and perceived confidence of tertiary site procedural skills in 2019**

	Perceived importance and desired frequency		Frequency performed and confidence		Frequency performed and desired frequency		Years of practice and confidence		Perceived confidence and desired frequency	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
<b>Adult endotracheal intubation</b>	0.10	0.4	<b>0.53</b>	<b>&lt;0.0001</b>	-0.08	0.5	0.14	0.2	0.11	0.3
<b>Arterial line insertion</b>	-0.05	0.7	<b>0.58</b>	<b>&lt;0.0001</b>	-0.09	0.5	-0.09	0.5	0.10	0.4
<b>Arthrocentesis</b>	-0.04	0.7	<b>0.41</b>	<b>0.0004</b>	0.03	0.8	0.10	0.4	0.07	0.6
<b>Central line insertion (landmark technique)</b>	0.08	0.5	<b>0.62</b>	<b>&lt;0.0001</b>	-0.01	1.0	0.23	0.1	0.03	0.8
<b>Central line insertion (US guided)</b>	-0.14	0.3	<b>0.63</b>	<b>&lt;0.0001</b>	-0.11	0.4	-0.19	0.1	-0.10	0.4
<b>Chest tube insertion</b>	-0.08	0.5	<b>0.48</b>	<b>&lt;0.0001</b>	-0.06	0.6	<b>0.28</b>	<b>0.02</b>	-0.02	0.9
<b>Compartment pressure measurement</b>	<b>0.27</b>	<b>0.02</b>	<b>0.55</b>	<b>&lt;0.0001</b>	0.04	0.7	<b>0.29</b>	<b>0.02</b>	0.15	0.2
<b>Corneal foreign body removal</b>	-0.12	0.3	<b>0.55</b>	<b>&lt;0.0001</b>	-0.15	0.2	<b>0.40</b>	<b>0.0005</b>	-0.003	1.0
<b>Cricothyroidotomy</b>	-0.03	0.8	<b>0.54</b>	<b>&lt;0.0001</b>	-0.13	0.3	<b>0.27</b>	<b>0.02</b>	-0.07	0.6
<b>Emergency department thoracotomy</b>	0.06	0.6	<b>0.69</b>	<b>&lt;0.0001</b>	0.14	0.2	0.13	0.3	0.21	0.1
<b>Escharotomy</b>	0.12	0.3	<b>0.53</b>	<b>&lt;0.0001</b>	0.01	0.9	0.07	0.5	-0.03	0.8
<b>Extensor tendon repair</b>	0.13	0.3	<b>0.49</b>	<b>&lt;0.0001</b>	0.14	0.3	<b>0.24</b>	<b>0.04</b>	-0.02	0.9
<b>FAST</b>	0.03	0.8	<b>0.66</b>	<b>&lt;0.0001</b>	-0.16	0.2	<b>-0.27</b>	<b>0.02</b>	-0.05	0.7
<b>Intraosseous line</b>			<b>0.37</b>	<b>0.001</b>	<b>-0.39</b>	<b>0.0006</b>	-0.02	0.9	-0.19	0.1



<b>insertion</b>										
<b>Lateral canthotomy</b>	0.06	<i>0.6</i>	<b>0.63</b>	<b>&lt;0.0001</b>	0.17	<i>0.1</i>	-0.20	<i>0.1</i>	0.17	<i>0.1</i>
<b>Pediatric endotracheal intubation</b>	-0.13	<i>0.3</i>	<b>0.56</b>	<b>&lt;0.0001</b>	<b>-0.29</b>	<b>0.01</b>	-0.01	<i>1.0</i>	-0.13	<i>0.3</i>
<b>Pericardiocentesis</b>	-0.17	<i>0.2</i>	<b>0.47</b>	<b>&lt;0.0001</b>	-0.19	<i>0.1</i>	0.15	<i>0.2</i>	0.02	<i>0.9</i>
<b>Posterior nasal pack for epistaxis</b>	-0.14	<i>0.3</i>	<b>0.61</b>	<b>&lt;0.0001</b>	<b>-0.28</b>	<b>0.01</b>	<b>0.26</b>	<b>0.03</b>	-0.15	<i>0.2</i>
<b>Regional nerve block</b>	-0.20	<i>0.1</i>	<b>0.67</b>	<b>&lt;0.0001</b>	-0.12	<i>0.3</i>	-0.05	<i>0.7</i>	0.05	<i>0.7</i>
<b>Suprapubic bladder catheterization</b>	0.08	<i>0.5</i>	<b>0.52</b>	<b>&lt;0.0001</b>	-0.17	<i>0.2</i>	0.08	<i>0.5</i>	0.03	<i>0.8</i>
<b>Thoracentesis</b>	0.17	<i>0.2</i>	<b>0.49</b>	<b>&lt;0.0001</b>	-0.14	<i>0.2</i>	0.20	<i>0.1</i>	0.09	<i>0.4</i>
<b>Transvenous pacing</b>	-0.10	<i>0.4</i>	<b>0.67</b>	<b>&lt;0.0001</b>	0.03	<i>0.8</i>	0.19	<i>0.1</i>	0.11	<i>0.4</i>
<b>Upper airway foreign body removal</b>	<b>-0.29</b>	<b>0.01</b>	<b>0.54</b>	<b>&lt;0.0001</b>	-0.01	<i>0.9</i>	<b>0.24</b>	<b>0.04</b>	-0.08	<i>0.5</i>
<b>Vaginal delivery</b>	0.18	<i>0.1</i>	0.16	<i>0.2</i>	0.02	<i>0.8</i>	0.07	<i>0.6</i>	0.14	<i>0.3</i>

**Table 2. Associations between Edmonton zone emergency physician years of practice, perceived importance, desired frequency, frequency performed, and perceived confidence of urban community site procedural skills in 2019**

	Perceived importance and desired frequency		Frequency performed and confidence		Frequency performed and desired frequency		Years of practice and confidence		Perceived confidence and desired frequency	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
<b>Adult endotracheal intubation</b>	0.05	0.8	<b>0.55</b>	<b>0.001</b>	0.03	0.9	0.01	<i>1.0</i>	0.15	<i>0.4</i>
<b>Anterior pack for epistaxis</b>	-0.07	0.7	<b>0.63</b>	<b>0.0001</b>	-0.03	0.9	0.19	<i>0.3</i>	0.14	<i>0.4</i>
<b>Arterial line insertion</b>	-0.24	0.2	<b>0.66</b>	<b>&lt;0.0001</b>	0.15	0.4	-0.19	<i>0.3</i>	-0.19	<i>0.3</i>
<b>Arthrocentesis</b>	-0.18	0.3	<b>0.41</b>	<b>0.02</b>	-0.18	0.3	0.16	<i>0.4</i>	0.04	<i>0.8</i>
<b>Central line insertion (landmark technique)</b>	0.03	0.9	<b>0.63</b>	<b>0.0001</b>	0.02	0.9	<b>0.40</b>	<b>0.02</b>	0.31	<i>0.1</i>
<b>Central line insertion (US guided)</b>	-0.25	0.2	<b>0.64</b>	<b>&lt;0.0001</b>	-0.25	0.2	<b>-0.52</b>	<b>0.003</b>	-0.15	<i>0.4</i>
<b>Chest tube insertion</b>	-0.14	0.5	<b>0.56</b>	<b>0.0009</b>	0.01	1.0	0.04	<i>0.8</i>	0.06	<i>0.7</i>
<b>Compartment pressure measurement</b>	0.12	0.5	<b>0.74</b>	<b>&lt;0.0001</b>	-0.02	0.9	0.22	<i>0.2</i>	0.05	<i>0.8</i>
<b>Corneal foreign body removal</b>	-0.26	0.2	<b>0.36</b>	<b>0.045</b>	-0.18	0.3	<b>0.36</b>	<b>0.04</b>	-0.16	<i>0.4</i>
<b>Cricothyroidotomy</b>	0.11	0.5	<b>0.51</b>	<b>0.003</b>	0.22	0.2	-0.10	<i>0.6</i>	0.04	<i>0.8</i>
<b>Ear/nose foreign body removal</b>	<b>-0.35</b>	<b>0.049</b>	<b>0.61</b>	<b>0.0002</b>	-0.30	0.1	0.07	<i>0.7</i>	-0.16	<i>0.4</i>
<b>Extensor tendon repair</b>	-0.21	0.3	<b>0.71</b>	<b>&lt;0.0001</b>	-0.01	0.9	<b>0.39</b>	<b>0.03</b>	-0.19	<i>0.3</i>
<b>FAST</b>	-0.26	0.1	<b>0.77</b>	<b>&lt;0.0001</b>	-0.30	0.1	<b>-0.64</b>	<b>&lt;0.0001</b>	-0.14	<i>0.5</i>
<b>Intraosseous line</b>	-0.14	0.4	<b>0.69</b>	<b>&lt;0.0001</b>	0.02	0.9	-0.16	<i>0.4</i>	-0.17	<i>0.4</i>

<b>insertion</b>										
<b>Lateral canthotomy</b>	-0.25	0.2	0.31	0.1	0.33	0.1	-0.12	0.5	0.31	0.1
<b>Pediatric endotracheal intubation</b>	0.06	0.8	<b>0.59</b>	<b>0.0004</b>	-0.06	0.8	-0.03	0.9	0.21	0.3
<b>Posterior nasal pack for epistaxis</b>	-0.11	0.5	<b>0.78</b>	<b>&lt;0.0001</b>	0.04	0.8	<b>0.41</b>	<b>0.02</b>	0.13	0.5
<b>Procedural sedation</b>	-0.27	0.1	<sup>a</sup>		-0.06	0.7	<sup>a</sup>		<sup>a</sup>	
<b>Regional nerve block</b>	0.02	0.9	<b>0.68</b>	<b>&lt;0.0001</b>	-0.19	0.3	0.14	0.4	0.08	0.7
<b>Thoracentesis</b>	0.01	0.9	<b>0.53</b>	<b>0.002</b>	0.16	0.4	0.05	0.8	-0.10	0.6
<b>Transcutaneous pacing</b>	-0.26	0.2	0.23	0.2	-0.34	0.1	0.08	0.7	-0.04	0.8
<b>Transvenous pacing</b>	-0.16	0.4	<b>0.59</b>	<b>0.0005</b>	-0.11	0.6	-0.22	0.2	0.07	0.7
<b>Vaginal delivery</b>	-0.01	0.9	<b>0.44</b>	<b>0.01</b>	0.08	0.7	0.31	0.1	0.02	0.9

<sup>a</sup> All survey participants responded “very confident,” thus no correlation.

**Table 3. Associations between Edmonton zone emergency physician years of practice, perceived importance, desired frequency, frequency performed, and perceived confidence of rural community site procedural skills in 2019**

	Perceived importance and desired frequency		Frequency performed and confidence		Frequency performed and desired frequency		Years of practice and confidence		Perceived confidence and desired frequency	
	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
<b>Abscess incision and drainage</b>	0.01	<i>1.0</i>	-0.18	<i>0.3</i>	-0.08	<i>0.6</i>	-0.10	<i>0.5</i>	0.12	<i>0.4</i>
<b>Adult endotracheal intubation</b>	0.06	<i>0.7</i>	0.14	<i>0.4</i>	-0.24	<i>0.1</i>	0.002	<i>1.0</i>	0.06	<i>0.7</i>
<b>Anterior pack for epistaxis</b>	0.24	<i>0.1</i>	0.15	<i>0.4</i>	0.16	<i>0.3</i>	-0.04	<i>0.8</i>	0.15	<i>0.3</i>
<b>Arthrocentesis</b>	0.09	<i>0.6</i>	0.24	<i>0.1</i>	<b>-0.41</b>	<b>0.01</b>	0.01	<i>1.0</i>	0.26	<i>0.1</i>
<b>Central line insertion (US guided)</b>	0.15	<i>0.3</i>	<b>0.37</b>	<b>0.02</b>	-0.11	<i>0.5</i>	<b>-0.32</b>	<b>0.04</b>	-0.05	<i>0.7</i>
<b>Chest tube insertion</b>	0.16	<i>0.3</i>	0.12	<i>0.4</i>	-0.19	<i>0.2</i>	0.13	<i>0.4</i>	0.08	<i>0.6</i>
<b>Corneal foreign body removal</b>	-0.16	<i>0.3</i>	0.20	<i>0.2</i>	-0.28	<i>0.1</i>	0.27	<i>0.1</i>	0.09	<i>0.6</i>
<b>Cricothyroidotomy</b>	0.06	<i>0.7</i>	<b>0.50</b>	<b>0.0008</b>	0.19	<i>0.2</i>	0.02	<i>0.9</i>	0.13	<i>0.4</i>
<b>Ear/nose foreign body removal</b>	0.07	<i>0.7</i>	0.19	<i>0.2</i>	0.07	<i>0.7</i>	0.12	<i>0.4</i>	0.12	<i>0.5</i>
<b>Electrical cardioversion</b>	0.04	<i>0.8</i>	<b>0.47</b>	<b>0.002</b>	-0.04	<i>0.8</i>	-0.19	<i>0.2</i>	-0.11	<i>0.5</i>
<b>Electrical defibrillation</b>	0.28	<i>0.1</i>	0.30	<i>0.1</i>	-0.14	<i>0.4</i>	-0.22	<i>0.2</i>	0.14	<i>0.4</i>
<b>Extensor tendon repair</b>	<b>0.33</b>	<b>0.04</b>	<b>0.64</b>	<b>&lt;0.0001</b>	-0.27	<i>0.1</i>	0.08	<i>0.6</i>	-0.20	<i>0.2</i>
<b>Fracture reduction</b>	0.19	<i>0.2</i>	0.29	<i>0.1</i>	0.09	<i>0.6</i>	-0.20	<i>0.2</i>	0.01	<i>0.9</i>
<b>Intraosseous line insertion</b>	0.05	<i>0.7</i>	<b>0.31</b>	<b>0.04</b>	-0.02	<i>0.9</i>	<b>-0.32</b>	<b>0.04</b>	-0.12	<i>0.5</i>
<b>Joint reduction</b>	0.03	<i>0.8</i>	0.16	<i>0.3</i>	0.07	<i>0.7</i>	-0.17	<i>0.3</i>	0.18	<i>0.3</i>

<b>Lumbar puncture</b>	-0.02	0.9	0.24	0.1	0.15	0.4	0.12	0.5	-0.23	0.2
<b>Nail procedures</b>	0.08	0.6	0.08	0.6	0.13	0.4	0.12	0.5	0.00	1.0
<b>Pediatric endotracheal intubation</b>	0.12	0.5	<b>0.35</b>	<b>0.02</b>	-0.02	0.9	0.13	0.4	-0.003	1.0
<b>Posterior nasal pack for epistaxis</b>	0.01	0.9	<b>0.35</b>	<b>0.02</b>	-0.12	0.5	0.12	0.4	-0.14	0.4
<b>Procedural sedation</b>	0.25	0.1	0.29	0.1	0.28	0.1	-0.25	0.1	0.17	0.3
<b>Regional nerve block</b>	0.07	0.7	0.22	0.2	0.14	0.4	0.04	0.8	-0.18	0.3
<b>Transcutaneous pacing</b>	0.01	0.9	<b>0.35</b>	<b>0.02</b>	<b>-0.32</b>	<b>0.04</b>	0.10	0.5	0.07	0.6
<b>Vaginal delivery</b>	-0.05	0.8	0.27	0.1	-0.15	0.3	0.30	0.1	-0.02	0.9