# Supplemental Digital Appendix 1

## Needs Assessment Survey and Results on the Communication Curriculum for Critical Care Medicine Fellows, Cumming School of Medicine, University of Calgary, April 2014

### Part I. Survey: Needs Assessment for Communication Training in Critical Care Medicine

1. Indicate your opinion on the **relative importance** of the following CanMEDS roles by ranking them from 1 to 7, where 1 = most important and 7 = least important. Please do not assign the same number to more than one role.

| CanMEDS role | Importance |
|---|---|
| Medical expert | |
| Communicator | |
| Collaborator | |
| Manager | |
| Health advocate | |
| Scholar | |
| Professional | |

2. Indicate your **level of confidence** in carrying out the following CanMEDS roles by ranking them from 1 to 7, where 1 = most confident and 7 = least confident. Please do not assign the same number to more than one role.

| CanMEDS role | Level of confidence |
|---|---|
| Medical expert | |
| Communicator | |
| Collaborator | |
| Manager | |
| Health advocate | |
| Scholar | |
| Professional | |

**3. Please indicate whether you have received teaching in the following areas at any time during your *postgraduate* medical education**

a. Building rapport (basic verbal and non-verbal communication)
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

b. Discussing serious news
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

c. Discussing goals of care
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

d. Conducting a family meeting
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

e. Adverse event disclosure
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

f. Conflict management
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

g. Counseling about the emotional/psychological impact of emergency situations
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area

iii. My Critical Care Medicine program provides training in this area

h. Transitioning to palliative care
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
   iii. My Critical Care Medicine program provides training in this area

i. Discussing organ donation
   i. I have not received training in this area during my postgraduate medical education
   ii. My primary residency program provided training in this area
      - Specify primary residency program:

   iii. My Critical Care Medicine program provides training in this area

**4. Please indicate the format for the training you have received in the following areas during your *postgraduate* medical education:**

a. Building rapport – verbal and non-verbal communication (select as many as are applicable):
   i. Didactic lectures
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

b. Discussing serious news (select as many as are applicable):
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

c. Discussing goals of care (select as many as are applicable):
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice

v. Other (please specify):

d. Conducting a family meeting (select as many as are applicable):
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

e. Adverse event disclosure (select as many as are applicable):
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

f. Conflict management (select as many as are applicable):
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

g. Counseling about the emotional/psychological impact of emergency situations
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

h. Transitioning to palliative care (select as many as are applicable):
   i. Didactic (lectures)
   ii. PGME workshops
   iii. Simulated practice (role play, simulation)
   iv. Direct observation and feedback from faculty in clinical practice
   v. Other (please specify):

i. Discussing organ donation
    i. Didactic (lectures)
    ii. PGME workshops
    iii. Simulated practice (role play, simulation)
    iv. Direct observation and feedback from faculty in clinical practice
    v. Other (please specify):

**5. Please describe the challenges that you have encountered in communicating with patients and/or their families in the ICU.**

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**6. During *one month* of an average ICU rotation, please estimate the frequency with which you are responsible for addressing the following with patients and/or their families:**

| | | | | | |
|---|---|---|---|---|---|
| Building rapport (verbal and non-verbal communication) | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Discussing serious news | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Discussing goals of care for resuscitation (“code status”) | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Conducting a family meeting | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Adverse event disclosure | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Conflict management | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Counseling about the emotional/psychological impact of emergency situations | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Transitioning to palliative care (“comfort measures”) | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |
| Discussing organ donation | 1 Never | 2 1 – 3 times | 3 4 – 6 times | 4 7 – 9 times | 5 >10 times |

**7. Please indicate your level of comfort in addressing the following topics related to communication in the ICU:**

| | | | | | |
|---|---|---|---|---|---|
| Building rapport (verbal and non-verbal communication) | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Discussing serious news | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Discussing goals of care for resuscitation (“code status”) | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Conducting a family meeting | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Adverse event disclosure | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Conflict management | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Counseling about the emotional/psychological impact of emergency situations | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Transitioning to palliative care (“comfort measures”) | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |
| Discussing organ donation | 1 Not at all comfortable | 2 | 3 | 4 | 5 Very comfortable |

**8. Please indicate whether you are interested in receiving additional training in the following areas:**

| | | | | | |
|---|---|---|---|---|---|
| Building rapport (verbal and non-verbal communication) | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Discussing serious news | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Discussing goals of care for resuscitation (“code status”) | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Conducting a family meeting | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Adverse event disclosure | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Conflict management | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Counseling about the emotional/psychological impact of emergency situations | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Transitioning to palliative care (“comfort measures”) | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Discussing organ donation | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |
| Other (please specify): | 1 Not at all interested | 2 | 3 | 4 | 5 Very interested |

**9. What are your ideas for incorporating communication teaching into your critical care training?**

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**10. Please add any additional comments you may have about communication teaching in postgraduate medical education:**

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**11. Please indicate your postgraduate year level: PGY _____**

**12. Please indicate the specialty of your first residency training:**

**13. Please indicate the University where you completed your first residency training:**

**14. Please indicate your gender:**

**15. Please indicate your age:**

**Thank you for your participation in this survey; your opinions are highly valued.**

**If you have any questions or concerns about this survey, please contact:**

**Part IIa. Needs Assessment Results: Quantitative Responses**

**1. Critical care medicine fellows' comfort in discussing various topics with patients and families**

| | **Not comfortable (n, %)** | **Somewhat comfortable (n, %)** | **Comfortable (n, %)** |
|---|---|---|---|
| Building rapport | 0 | 1 (14.3) | 6 (85.7) |
| Discussing serious news | 0 | 0 | 7 (100) |
| Discussing goals of care | 0 | 0 | 7 (100) |
| Family meetings | 0 | 1 (14.3) | 6 (85.7) |
| Patient safety incident disclosure | 3 (42.9) | 2 (28.6) | 2 (28.6) |
| Addressing conflict | 0 | 6 (85.7) | 1 (14.3) |
| Counseling about emotional impact of emergency situations | 3 (42.9) | 2 (28.6) | 2 (28.6) |
| Discussing transition to palliative care | 0 | 2 (28.6) | 5 (71.4) |
| Offering organ donation | 2 (28.6) | 2 (28.6) | 3 (42.9) |

Total number of respondents – 7 fellows

**2. Critical care medicine fellows' interest in further learning about communicating with patients and families**

| | **Not interested (n, %)** | **Somewhat interested (n, %)** | **Interested (n, %)** |
|---|---|---|---|
| Building rapport | 5 (71.4) | 1 (14.3) | 1 (14.3) |
| Discussing serious news | 5 (71.4) | 1 (14.3) | 1 (14.3) |
| Discussing goals of care | 4 (57.1) | 2 (28.6) | 1 (14.3) |
| Family meetings | 3 (42.9) | 1 (14.3) | 3 (42.9) |
| Patient safety incident disclosure | 1 (14.3) | 2 (28.6) | 4 (57.1) |
| Addressing conflict | 2 (28.6) | 3 (42.9) | 2 (28.6) |
| Counseling about emotional impact | 0 | 5 (71.4) | 2 (28.6) |
| Discussing transition to palliative care | 2 (28.6) | 3 (42.9) | 2 (28.6) |
| Offering organ donation | 0 | 1 (14.3) | 6 (85.7) |

Total number of respondents – 7 fellows

**3. Assessment of critical care medicine fellows' communication skills by critical care medicine attending physicians, nurses, and social workers**

| | **Below expectations (n, %)** | **Meets expectations (n, %)** | **Above expectations (n, %)** |
|---|---|---|---|
| Building rapport | 20 (27.0) | 43 (58.1) | 11 (14.9) |
| Discussing serious news | 14 (18.9) | 44 (59.5) | 16 (21.6) |
| Discussing goals of care | 31 (41.9) | 33 (44.6) | 10 (13.5) |
| Family meetings | 22 (30.6) | 36 (50.0) | 14 (19.4)** |
| Patient safety incident disclosure | 30 (40.5) | 35 (47.3) | 9 (12.2) |
| Addressing conflict | 30 (41.1) | 35 (47.9) | 8 (11.0)* |
| Counseling about emotional impact of emergency situations | 44 (61.1) | 21 (29.2) | 7 (9.7)** |
| Discussing transition to palliative care | 27 (37.0) | 21 (28.8) | 12 (16.4)* |
| Offering organ donation | 24 (34.3) | 18 (25.7) | 10 (14.3)*** |

Total number of respondents – 74, *73, **72, ***70 staff physicians, nurses, and social workers

**Part IIb. Needs Assessment Results: Qualitative Responses**

**1. Critical care medicine fellows' challenges in communicating with patients and families**

| Themes | Subthemes | Example quotes |
|---|---|---|
| Personal discomfort | Level of comfort | As health care providers we sometimes get lost in our own nomenclature. For example it is far easier to say: "Your husband is not responding to the therapies as we'd hoped" when what we're really saying is: "Your husband is going to die." (F)<br><br>Looking uncomfortable when giving difficult news. (AP)<br><br>Lack of experience with this skill leading to some uncertainty as to how and what to say. (RN) |
| Inexperience | Learning opportunities | Limited opportunity to conduct family meetings. (AP)<br><br>Staff want to run family meetings to build rapport with family. (AP)<br><br>I feel that our Critical Care trainees have not been exposed to the way our attending physicians approach all of these conversations. (RN) |
| | Feedback | No formal evaluation of communication skills. (AP) |
| Rapport | Established relationship | I don't know the family outside of this difficult context. It's hard to introduce yourself to someone and then give them bad news about their dying family member). (F) |
| | Introductions | Not introducing self, team members and roles to family. (AP) |
| | Language barriers | Language barrier with patients and/or families that don't speak English. (F) |
| | Responding to emotion | Trying to convey information that is sure to evoke strong emotions is just not an easy thing to do… Trying to manage and be sensitive to the emotions at play… extreme emotions are involved. (F)<br><br>Sensitivity… is critical. (SW) |

| | | |
|---|---|---|
| | Allowing silence | Not being aware of when family thinking/processing → starting to talk too early. (AP)<br><br>Comfort with allowing silence. (SW) |
| Patient as person | Familiarity with religious and cultural beliefs | Different religious and/or cultural thoughts about the end of life. (F)<br><br>Dealing with varying cultural /ethnic backgrounds. (SW) |
| | Identifying health trajectory | Not enough discussion about clinical course (chronic health problems, pre-hospital/ICU trajectory and its impact on course in ICU/hospital). (AP)<br><br>Setting the stage for difficult conversations; ie. We are not here yet, but a place we might end up is --- (SW) |
| | Eliciting values | Not asking questions to understand patient's life story and values/aspirations. (AP)<br><br>Fellows often feel their duty is to educate families on the pathophysiology of critical illness rather than listening to and exploring the meaning of critical illness with patients and families. (RN)<br><br>Asking "how does what I am telling you fit/conflict with your personal beliefs etc. (SW) |
| Information | Terminology | We need to convey medical information to 'lay people'. As health care providers we sometimes get lost in our own nomenclature. (F)<br><br>Difficulty providing explanations to family in terms they can understand. (AP)<br><br>Some struggle with discussing in language consistent with what the family could understand. (RN) |
| | Flow of conversation | Tendency to repeat same information without moving conversation forward. (AP)<br><br>Delaying the important message by discussing less relevant information. (AP) |

| | | |
|---|---|---|
| | | Not prioritizing problems/treatments. (AP) |
| | | Simplifying complex medical situations so that the family can understand. (F) |
| | Global perspective | Providing too much information/detail too quickly. (AP) |
| | | Losing the forest for the trees. (AP) |
| | Verifying understanding | Not asking the family/patient at the end if they have questions and what their understanding is of what they have been told. (RN) |
| Prognostication | Level of certainty | When there is uncertainty, to make a medical recommendation / limits on care. (F) |
| | | Predicting too early what may/may not happen. (AP) |
| | Conveying prognosis | Difficulty expressing prognosis in honest realistic terms. (AP) |
| | | Sometimes I find they are scared to be honest. (RN) |
| | | Not being up front about situation and prognosis… Often give false hope for full recovery. (RN) |
| | | Hesitancy to speak with patients and their families regarding prognosis. (RN) |
| Decision-making | Shared decision-making | Sometimes it's hard to find the balance between having families understand they don't carry the burden of decision to withdraw (ie: that they are not pulling the plug, they are representing the patient's views). (F) |
| | | Difficulty balancing consensus decision-making with not offering medically inappropriate treatment. (AP) |
| | | Difficulty distinguishing information from a decision. (AP) |
| | Tailoring timing of | Sense of timing/readiness on the part of family members is critical. (SW) |

| | | |
|---|---|---|
| | decision-making | |
| Palliative care | Discussing withdrawal of life support | Once you've decided to withdraw, what exactly to say when the family says "so what next?" (F) |
| Family expectations | Family satisfaction | I find that sometimes families… are dissatisfied with care and always want to find someone to blame for their loved ones' deterioration. (F) |
| | Finding common ground | The most common challenge in communicating with patients/families in ICU often arises from differences in expectations. It can be challenging to bridge that gap and come to common ground. (F) |
| | | I find that sometimes families do not understand how personally we take things. (F) |
| | Addressing conflict | Managing family with agenda opposite of healthcare team. (AP) |
| | | Family/patient with unrealistic expectations about prognosis/outcome. (SW) |
| Interprofessional communication | Seeking team input | Bedside nurses are rarely consulted before family conferences by the fellows or the staff MDs. I believe that the bedside nurse could offer some insight that would improve communication with the families. (RN) |
| Discontinuity | Consistency of messages | Speaking with families after other physicians have had meetings with them ie: lack of consistency of message. (F) |
| ICU environment | | Chaotic environment, urgency of discussing issues, but not having the time to be "present" with the family. (RN) |

F = fellow, AP = attending physician, RN = registered nurse, SW = social worker

**2. Ideas for integrating communication teaching into curriculum**

| Themes | Subthemes | Example quotes |
|---|---|---|
| Formal | Integration into curriculum | It could be small teaching sessions done in ICU (the 3 pm teaching sessions) or in the academic curriculum. (F) |
| | Simulation | Simulation would be a good way to do this. (F) |
| | | Simulation sessions with trained patients/family members would be useful for practicing specific skills. (AP) |
| Informal | Coaching | I find that direct supervision can be very helpful- particularly when there is time for discussion both before and after the interaction and provision of feedback. (F) |
| | | Coaching and mentorship. (SW) |
| | Role modeling | Best way is for the trainees to observe a variety of family meetings by different attendings and draw from these examples to shape their own family meetings. (AP) |
| | Direct observation | Being sure a nurse and ideally a social worker and attending MD is included in trainee-led patient/family meetings. (AP) |
| | Routine feedback | Formalize the feedback and learning into the everyday practice of critical care. (F) |
| | | Feedback on family conferences from an independent medical observer using a easy to use feedback form. (AP) |
| | Multidisciplinary feedback | Feedback that is positive and constructive; timing, tone and amount critical. (SW) |
| | | Knowing who to ask for feedback (eg RNs, social workers) can also be useful, not just feedback from staff. (F) |
| | Multidisciplinary debriefing | It should be expected that after every family meeting there is a debrief with all health care parties involved. (F) |

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|---|---|---|
| | Reflection | Incremental communication self-critique of a family meeting. (AP) |
| | Teaching | Teach more junior housestaff. (AP) |
| Topics | General approach | Listening [to families] and gaining understanding of the experience of life threatening illness. Using open dialogue, questions that 'explore' rather than 'tell' will shift the practice of fellows and help them care for the patient in a person-centered manner. (RN) |
| | Specific topics | Common things done well by most fellows/staff. Uncommon situations done less well and conflict resolution/organ donation could always be improved upon. (F) |
| | | Communication principles, unanticipated/adverse event disclosure, conflicts about goals of care. (AP) |
| | | Leadership, communication in crisis, non-technical communication, goals of care, interprofessional communication, palliative care, conflict. (RN) |

F = fellow, AP = attending physician, RN = registered nurse, SW = social worker