# **Supplementary Material**

Family presence on rounds in adult critical care: A scoping review

# **Supplementary Material**

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**Appendix 1:** OVID Search query (last accessed January 28<sup>th</sup> 2022)

## **Advanced search**

Teaching Rounds/ AND (Professional-Family Relations/ OR Family/ OR Family Relations/ OR (family or families).mp.) AND (exp Hospital Units/ OR exp Emergency Service, Hospital/ OR (intensive care or ward? OR clinical teaching unit\* OR trauma unit\* OR critical care surgery unit\* OR medicine unit\* OR hospitalis\* OR hospitaliz\* OR emergency department\* OR emergency unit\*).mp.)

Supplementary Table 1. Provider and family perspectives on family participation in rounding in the adult intensive care unit

Author/Year	Description	Provider Perspectives	Family Perspectives
Au, 2017(1)	Cross-sectional survey of providers (n=258) and family (n=63) at 4 medical-surgical ICUs in Canada, looking at perceptions of family participation in ICU rounds	<ul> <li>Worried that family participation in rounds would increase family stress and confusion</li> <li>Felt that families should be provided with the option of attending rounds daily, improved their relationship with families</li> <li>↑ perceived rounding time by 5-10 minutes per patient when family members participated.</li> <li>↓ frequent and shorter family meetings</li> <li>↓ provider experience was associated with supporting decision-making and question-asking role for family members in rounds</li> <li>↓ teaching when family members attended rounds</li> </ul>	<ul> <li>97% of families expressed a high degree of interest in attending rounds</li> <li>For unconscious patients, preferred rounds to occur outside the patient's room</li> <li>For awake patients: preferred rounds inside the patient's room</li> <li>Family members reported feeling welcome, respected, and included</li> <li>Rounds were informative and there was enough time for questions to be addressed</li> </ul>
Cody, 2018(2)	Qualitative descriptive study only on family members (n=19) in 2 medical ICUs in the US, exploring family perspectives of ICU bedside rounds to understand why some family members chose to participate or not		<ul> <li>Bedside rounds seen as a way to convey genuine caring and respect for family and for patient</li> <li>Families reported confidence when plan of care was discussed; expectations were reviewed</li> <li>Helpful for receiving patient-related information</li> <li>Most perceived opportunities to ask questions</li> </ul>
Holodinsky, 2015(3)	Cross sectional survey of providers (n=180) in 111 ICUs across Canada with follow-up interviews to describe rounding practices and identify opportunities for improvement	<ul> <li>Listed the patient as a passive participant in rounds</li> <li>Family members identified as being able to provide information about patient's baseline and medical status, expressed wishes and involved in decision-making</li> <li>Interruptions were associated with perceptions of ↓ rounding quality and ↑ room for improvement</li> <li>Timely rounds were associated with perceptions of ↑ rounding quality and a ↓ need for improvement</li> <li>Patient and family involvement in rounds was positive</li> </ul>	-

Mangram, 2005(4)	Cross-sectional survey on families (n=55) in a trauma-ICU in Dallas to determine whether daily scheduled family rounding was valued by families and if it resulted in improved communication and relationships	-	<ul> <li>86.5 % of families looked forward to having a specific time of day to meet with trauma team</li> <li>36 % did not like having only scheduled time for family rounding</li> <li>90 % liked having rounds in ICU room with patient</li> <li>75 % believed that all concerns were addressed during rounds</li> <li>84.9 % rated their overall experience as either excellent or good</li> </ul>
Rabinowitz, 2016(5)	Qualitative study on adult and pediatric resident providers (n=85) to assess the perceptions of current and idealized inpatient rounds at 4 teaching hospitals in the US	<ul> <li>Residents described value of updating patients/families about evolving care plan.</li> <li>Residents commented that rounds provide opportunity to educate patients and parents about the care plan.</li> </ul>	-
Reeves, 2015(6)	Ethnographic study on providers and family members (n=unknown) in 4 ICUs whereby two post-doctorate researchers observed, interviewed, and documented their time in ICUs over the course of one year	-	<ul> <li>Family members noted unity of providers from multiple professions during critical medical events</li> <li>Family members noted positive ICU experience when they established trust with the staff</li> <li>Family members noted their role in providing, translating, and transferring patient information</li> <li>Family members were <i>filter</i> of clinical information about their relative between ICU staff</li> <li>Family members observed use of computers and IT as a tool for staff to facilitate care and liaise</li> </ul>
Rotman- Pikielny, 2007(7)	Prospective study on providers (n=26), patients (n=35) and family members (n=40) investigating the attitude towards participation of family members in rounding prior to and after intervention in a teaching hospital in Tel Aviv	<ul> <li>Staff members expressed positive attitude towards family attendance at rounds before and after participating in intervention</li> <li>Staff members believed that family attendance at rounds would ↑ their duration</li> <li>Physicians and nurses thought that family involvement during hospitalization is important</li> <li>½ of all physicians expressed positive attitude towards family participation in rounding</li> </ul>	Family members believed their involvement in rounding allowed for decision making role

Roze des Ordons, 2020(8)	Qualitative descriptive study exploring provider (n=35) and family member (n=29) perspective in 4 ICUs in Alberta, touching on numerous aspects of family participation on bedside rounds and identify avenues for improvement	<ul> <li>Health care providers perceived that families could play an important role in advocating for care</li> <li>Described how family participation ↑ family confidence and trust in the care team</li> <li>Described how families ↑ clinical team's knowledge and how their input can inform clinical decision-making</li> </ul>	<ul> <li>Described how family participation ↑ family confidence and trust in care team</li> <li>Family participation ↑ understanding of ICU context and perspective</li> <li>Families had regular access to information and opportunities to ask questions</li> <li>Family relayed information to others family and alerted them to important aspects of care</li> <li>Family could ↑ clinical team's knowledge and their input informed clinical decision-making</li> <li>Family raised concerns about omissions in care</li> <li>Family noted that smaller teams were more conducive to their participation</li> </ul>
Santiago, 2014(9)	Qualitative descriptive study on providers (n=160) towards family presence at bedside rounds in a medical-surgical ICU in Toronto	<ul> <li>Providers strongly or somewhat agreed with providing family the option to attend rounds regardless whether it was early or late after ICU admission</li> <li>Providers somewhat disagreed or were neutral towards family presence ↑ round length</li> <li>Providers either somewhat disagreed or were neutral that family should be asked to leave if they were present</li> <li>Providers strongly or somewhat favoured the presence of family, especially early after ICU admission</li> <li>Significantly more physicians than nurses rated their overall experience with family members being present at bedside rounds as excellent</li> </ul>	
Schiller, 2003(10)	Qualitative descriptive study on nursing providers (n=unknown) family members (n=34) in an adult and pediatric ICU in Illinois to obtain retrospective	<ul> <li>Nurses were generally positive about their experience</li> <li>Nurses found process to be disruptive and repetitive</li> <li>Others found that the process should be selective to certain families</li> </ul>	<ul> <li>Family appreciated efforts to transfer information and reported ↑ awareness of details and overall severity of situation</li> <li>↑ comfort with uncertainties of critical care</li> <li>Families appreciated process of ratification of decisions made since the previous rounds</li> </ul>

opinions about family rounding	Viewed team as clinical authority rather than casual opinion of whomever encountered patient or family
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**Legend**Abbreviations: ICU, intensive care unit; IT, information technology; US, United States

## Supplementary Table 2. Barriers or Challenges to Family Presence on Rounds

## **Family**

### Communication

- lack of interaction between family and providers (Holodinsky 2015(3))
- limitation of information brought up due to sensitive information or prognosis (Roze des Ordons 2020(8))
- lack of preparation for rounds and lack of follow-up communication (Roze des Ordons 2020(8))
- language barriers (Roze des Ordons 2020(8))
- test results or adverse events communicated without context or prior sensitive disclosure (Au 2018(11))

## Offensive comments by ICU team

• comments made by ICU team members may have been offensive to family members, for example, a resident criticizing a patient with severe asthma for continuing to smoke (Au 2018(11))

## **Negative interactions**

- witnessed uncertainty and conflict between ICU providers (Au 2018(11), Roze des Ordons 2020(8))
- family felt that their contribution and participation were of little value (Reeves 2015(6))
- increased stress following rounds (Roze des Ordons 2020(8))
- no invitation to rounds or formal introduction at the start of rounds (Roze des Ordons 2020(8))

## Consistency

- bedside rounds did not always occur as expected in a predictable fashion (Cody 2018(2); Roze des Ordons 2020(8))
- rounds style and time varied depending on which attending was conducting them (Holodinsky 2015(3); Reeves 2015(6); Mangram 2005(4))
- inconsistencies in practice were observed by family (Cody 2018(2); Holodinsky 2015(3); Schiller 2003(10))
- ICU visit policies were selectively or arbitrarily enforced, leading to family member frustration (Reeves 2015(6))

## Round structure/style

- rounds were frequently interrupted due to pages and phone calls (Holodinsky 2015(3))
- inadequate question time to have concerns addressed (Jacobowski 2010(12))
- discomfort having rounds occur in patient's room (Mangram 2005(4))
- lack of multiple scheduled rounds to speak with providers (Mangram 2005(4))
- perceived rounding occurring outside patient's room as being impersonal (Roze des Ordons 2020(8))

## Miscellaneous

• Physical design of ICU influenced interactions between family, patient and providers (Reeves 2015(6))

## Health care providers

#### Communication

- visitors who were not close family were inadvertently invited to join rounds (Au 2018(11), Roze des Ordons 2020(8))
- information family provided not consistent with previously expressed patient wishes (Au 2018(11))
- information provided to family could infringe on patient confidentiality (Roze des Ordons 2020(8))

## **Negative interactions**

- residents perceived that family needs superseded their own (Rabinowitz 2016(5))
- family members may be disruptive (Roze des Ordons 2020(8))
- experienced registered nurses reported having a negative experience with family (Santiago 2014(9))

## **Teaching**

• presence of family constrained academic discussion of patients or teaching (Santiago 2014(9); Rabinowitz 2016(5); Roze des Ordons 2020(8))

## Round structure/style

- repetition of information to family that team already knew (Rabinowitz 2016(5))
- residents had lack of formal feedback opportunities (Rabinowitz 2016(5))
- family members reduced efficiency of rounds (Roze des Ordons 2020(8))
- family's preference for information and participation in rounds introduced challenges (Roze des Ordons 2020(8))

## Legend

Abbreviations: ICU, intensive care unit;

## References

- 1. Au SS, Roze des Ordons A, Soo A, et al: Family participation in intensive care unit rounds: Comparing family and provider perspectives. *Journal of Critical Care*; 38:132-136
- 2. Cody SE, Sullivan-Bolyai S, Reid-Ponte P: Making a Connection: Family Experiences With Bedside Rounds in the Intensive Care Unit. *Critical Care Nurse*; 38(3):18-26
- 3. Holodinsky JK, Hebert MA, Zygun DA, et al: A Survey of Rounding Practices in Canadian Adult Intensive Care Units. *PLoS ONE [Electronic Resource]*; 10(12):e0145408
- 4. Mangram AJ, McCauley T, Villarreal D, et al: Families' perception of the value of timed daily "family rounds" in a trauma ICU. *American Surgeon*; 71(10):886-891
- 5. Rabinowitz R, Farnan J, Hulland O, et al: Rounds Today: A Qualitative Study of Internal Medicine and Pediatrics Resident Perceptions. Journal of Graduate Medical Education; 8(4):523-531
- 6. Reeves S, McMillan SE, Kachan N, et al: Interprofessional collaboration and family member involvement in intensive care units: emerging themes from a multi-sited ethnography. *J Interprof Care* 2015; 29(3):230-237
- 7. Rotman-Pikielny P, Rabin B, Amoyal S, et al: Participation of family members in ward rounds: Attitude of medical staff, patients and relatives. *Patient Educ Couns* 2007; 65(2):166-170
- 8. Roze des Ordons AL, Au S, Blades K, et al: Family participation in ICU rounds-Working toward improvement. *Journal of Evaluation in Clinical Practice*; 26(6):1620-1628
- 9. Santiago C, Lazar L, Jiang D, et al: A survey of the attitudes and perceptions of multidisciplinary team members towards family presence at bedside rounds in the intensive care unit. *Intensive & Critical Care Nursing*; 30(1):13-21
- 10. Schiller WR, Anderson BF: Family as a member of the trauma rounds: a strategy for maximized communication. *J Trauma Nurs* 2003; 10(4):93-101
- 11. Au SS, Roze des Ordons AL, Parsons Leigh J, et al: A Multicenter Observational Study of Family Participation in ICU Rounds. *Critical Care Medicine*; 46(8):1255-1262
- 12. Jacobowski NL, Girard TD, Mulder JA, et al: Communication in critical care: family rounds in the intensive care unit. *American Journal of Critical Care*; 19(5):421-430