

Supplemental Digital Appendix 1

Table of References for Themes Identified From Milestones for the Transitional Year and 26 Core Specialties, From a Thematic Study of ICS, PBLI, PROF, and SBP Milestones, 2017

Competency	Theme	References
ICS	Communication with patients	<p>Sullivan A, Rock LK, Gadmer NM, Norwich DE, Schwartzstein RM. The impact of resident training on communication with families in the intensive care unit. Resident and family outcomes. Annals of the American Thoracic Society. 2016;13:512-521.</p> <p>Arnold RM, Back AL, Prendergast TJ, et al. The critical care communication project: Improving fellows' communication skills. Journal of Critical Care. 2015;30:250-254.</p> <p>Horber D, Langenau E, Kachur E. Teaching and assessing doctor-patient communication using remote standardized patients and SKYPE feedback from medical residents. ERIC. http://files.eric.ed.gov/fulltext/ED552870.pdf. Published April 2014. Accessed May 8, 2017.</p> <p>Crotty BH, Mostaghimi A, Landon BE. Preparing residents for future practice: Report of a curriculum for electronic patient-doctor communication. Postgrad Med J. 2013;89:554-559.</p>
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		<p>Porta CR, Sebesta JA, Brown TA, et al. Training surgeons and the informed consent process: Routine disclosure of trainee participation and its effect on patient willingness and consent rates. Arch Surg. 2012;147:57-62.</p> <p>Pallin DJ, Harris R, Johnson CI, Giraldez E. Is consent “informed” when patients receive care from medical trainees? Acad Emerg Med. 2008;15:1304-1308.</p>
PBLI	Self-directed learning	<p>Li ST, Tancredi DJ, Co JP, West DC. Factors associated with successful self-directed learning using individualized learning plans during pediatric residency. Acad Pediatr. 2010;10:124-130.</p> <p>Plant JL, Corden M, Mourad M, O’Brien BC, van Schaik, SM. Understanding self-assessment as an informed process: Residents’ use of external information for self-assessment of performance in simulated resuscitations. Adv Health Sci Educ Theory Pract. 2013;18:181-192.</p> <p>Peterson LE, Blackburn B, King MR. Completing self-assessment modules during residency is associated with better certification exam results. Fam Med. 2014;46:597-602.</p>
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	Scholarly activity	<p>Hoedebecke K, Rerucha C, Runser L. Increase in residency scholarly activity as a result of resident-led initiative. Fam Med. 2014;46:288-290.</p> <p>Stevenson MD, Smigielski EM, Naifeh NM, Abramson EL, Todd C, Li ST. Increasing scholarly activity productivity during residency: A systematic review. Acad Med. 2016;92:250-266.</p>

		Amrhein TJ, Tabesh A, Collins HR, Gordon LL, Helpert JA, Jensen JH. Instituting a radiology residency scholarly activity program. <i>Educ Health</i> . 2015;28:68-73.
	Teaching	<p>Snydman L, Chandler D, Rencic J, Sung YC. Peer observation and feedback of resident teaching. <i>Clin Teach</i>. 2013;10:9-14.</p> <p>Miloslavsky EM, McSparron JI, Richards JB, Puig A, Sullivan AM. Teaching during consultation: Factors affecting the resident-fellow teaching interaction. <i>Med Educ</i>. 2015;49:717-730.</p> <p>Rivera V, Yukawa M, Aronson L, Widera E. Teaching geriatric fellows how to teach: A needs assessment targeting geriatrics fellowship program directors. <i>J Am Geriatr Soc</i>. 2014;62:2377-2382.</p>
PROF	Attitudes and behaviors	<p>Lases SS, Arah OA, Pierik EG, Heineman E, Lombarts MJ. Residents' engagement and empathy associated with their perception of faculty's teaching performance. <i>World J Surg</i>. 2014;38:2753-60.</p> <p>Everett JP, Walters CA, Stottlemeyer DL, Knight CA, Oppenberg AA, Orr RD. To lie or not to lie: Resident physician attitudes about the use of deception in clinical practice. <i>J Med Ethics</i>. 2011;37:333-338.</p> <p>Willen SS. Confronting a "big huge gaping wound": Emotion and anxiety in a cultural sensitivity course for psychiatry residents. <i>Cult Med Psychiatry</i>. 2013;37:253-279.</p>
	Accountability	<p>Sanfey, H, DaRosa DA, Hickson GB, et al. Pursuing professional accountability an evidence-based approach to addressing residents with behavioral problems. <i>Arch Surg</i>. 2012;147:642-647.</p> <p>Lebensohn P, Dodds S, Benn R, et al. Resident wellness behaviors: Relationship to stress, depression, and burnout. <i>Fam Med</i>. 2013;45:541-549.</p> <p>Sirriyeh R, Lawton R, Gardner P, Armitage G. Coping with medical error: A systematic review of papers to assess the effects of involvement in medical errors on healthcare professionals' psychological well-being. <i>Qual Saf Health Care</i>. 2010;19:e43.</p>

	Ethics	<p>Egan, EA. Ethics training in graduate medical education. Am J Bioeth. 2002;2:26-28.</p> <p>Carrese JA, McDonald EL, Moon M, et al. Everyday ethics in internal medicine resident clinic: An opportunity to teach. Med Educ. 2011;45:712-721.</p> <p>Vertrees SM, Shuman AG, Fins JJ. Learning by doing: Effectively incorporating ethics education into residency training. J Gen Intern Med. 2013;28:578-582.</p>
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SBP	Health economics	<p>Haldiman L, Zia H, Singh G. Improving appropriateness of blood utilization through prospective review of requests for blood products: The role of pathology residents as consultants laboratory medicine. Lab Med. 2014;45:264-271.</p> <p>Fogerty RL, Heavner JJ, Moriarty JP, Sofair AN, Jenq G. Teaching & learning in medicine. Teach Learn Med. 2014;26:90-94.</p> <p>Varkey P, Murad MH, Braun C, Grall KJH, Saoji V. A review of cost-effectiveness, cost-containment and economics curricula in graduate medical education. J Eval Clin Pract. 2010;16:1055-1062.</p>
	Health care delivery settings	<p>Pulcrano M, Chahine AA, Sarastis A, Divine-Cadavid J, Narra V, Evans SRT. Putting residents in the office: An effective method to teach the systems-based practice competency. J Surg Educ. 2015;72:286-290.</p> <p>Sakai T, Emerick TD, Patel RM. A retrospective review of required projects in systems-based practice in a single anesthesiology residency: A 10-year experience. J Clin Anesth. 2015;27:451-456.</p>

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ICS/SBP	Coordination and transitions of care	<p>Starmer AJ, Sectish T, Simon D, Landrigan CP. Rates of medical errors and preventable adverse events among hospitalized children following implementation of a resident handoff bundle. JAMA. 2013;310:2262-2270.</p> <p>Visram K, Carr LS, Petrongolo JD. Implementation and assessment of a required transitions-of-care residency rotation. Am J Health Syst Pharm. 2016;73:e255-e260.</p> <p>Connor MP, Bush AC, Brennan J. IMOUTA: A proposal for patient care handoffs. Laryngoscope 2013;123:2649-2653.</p> <p>Navratil-Strawn JL, Hawkins K, Wells TS, et al. An emergency room decision-support program that increased physician office visits, decreased emergency room visits, and saved money. Popul Health Manag. 2014;17:257-264.</p> <p>Turner J, Kim K, Mehrotra S, DaRosa DA, Daskin MS, Rodriguez HE. Using optimization models to demonstrate the need for structural changes in training programs for surgical medical residents. Health Care Manag Sci. 2013;16:217-227.</p> <p>Donnelly MJ, Clauser JM, Tractenberg RE. A multicenter intervention to improve ambulatory care handoffs at the end of residency. J Grad Med Educ. 2014;2:112-116.</p> <p>Graham KL, Marcantonio ER, Huang GC, Yang J, Davis RB, Smith C. Effect of a systems intervention on the quality and safety of patient handoffs in an internal medicine residency program. J Gen Intern Med. 2013;28:986-993.</p>

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ICS/PROF	Confidentiality	<p>Prochaska MT, Bird AN, Chadaga A, Arora VN. Resident use of text messaging for patient care: Ease of use or breach of privacy?. <i>JMIR Med Inform</i>. 2015;3:e37.</p> <p>MacDonald J, Sohn S, Ellis P. Privacy, professionalism and Facebook: A dilemma for young doctors. <i>Med Educ</i>. 2010;44:805-813.</p>
PBLI/PROF	Feedback	<p>Hempel D, Pivetta E, Kimberly HH. Personalized peer-comparison feedback and its effect on emergency medicine resident ultrasound scan numbers. <i>Crit Ultrasound J</i>. 2014;6:1.</p> <p>Francis DO, Eavey RD, Wright HV, Sinard RJ. Incorporating postoperative debriefing into surgical education. <i>J Surg Educ</i>. 2016;73:448-452.</p> <p>Harewood GC. Prospective controlled assessment of impact of feedback on gastroenterology trainees in outpatient practice. <i>Dig Dis Sci</i>. 2011;56:2784-2788.</p> <p>Delva D, Sargeant J, Miller S, et al. Encouraging residents to seek feedback. <i>Med Teach</i>. 2013;35:e1625-e1631.</p>

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PBLI/SBP	Patient safety and errors	<p>Gendelberg D, Hennrikus W, Slough J, Amstrong D, King S. A radiation safety training program results in reduced radiation exposure for orthopaedic residents using the mini C-arm. Clin Orthop Relate Res. 2016;474:580-584.</p> <p>Gillan C, Yip KWT, Adelman J, Guiliani M. Competency in quality: Defining the scope and nature of quality competencies for radiation oncology residency programs. J Med Imag Rad Sci. 2016;47:139-146.</p> <p>Sadigh G, Khan R, Kassin MT, Applegate KE. Radiation safety knowledge and perceptions among residents: A potential improvement opportunity for graduate medical education in the United States. Acad Radiol. 2014;21:869-878.</p> <p>de Feijter JM, de Grave WS, Koopmans RP, Scherpbier AJJA. Informal learning from error in hospitals: What do we learn, how do we learn and how can informal learning be enhanced? A narrative review. Adv Health Sci Educ. 2013;18:787-805.</p> <p>Chen TC, Schein OD, Miller JW. Sentinel events, serious reportable events, and root cause analysis. JAMA Ophthalmol. 2015;133:631-632.</p> <p>Jansma JD, Wagner C, ten Kate RW, Bijnen AB. Effects on incident reporting after educating residents in patient safety: A controlled study. BMC Health Serv Res. 2011;11:335.</p> <p>Kerfoot BP, Conlin PR, Trivison T, McMahon GT. Patient safety knowledge and its determinants in medical trainees. J Gen Intern Med. 2007;22:1150-4.</p>
	Quality assurance/improvement	<p>Carey WA, Colby CE. Educating fellows in practice-based learning and improvement and systems-based practice: The value of quality improvement in clinical practice. J Crit Care. 2013;28:112.e1-112.e5.</p> <p>Kahn J, Feemster L, Fruci C, et al. Attitudes of pulmonary and critical care training program directors toward quality improvement education. Ann Am Thorac Soc. 2015;12:587-590</p>

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PROF/SBP	Team	<p>Olupeliyawa A, Balasooriya CD, Hughes C, O’Sullivan AJ. Transition to clinical practice as a medical graduate: What collaborative competencies and behaviours are critical? <i>Focus Health Prof Educ.</i> 2013;14:57-70.</p> <p>Hanyok LA, Walton-Moss B, Tanner E, Stewart RW, Becker K. Effects of a graduate-level interprofessional education program on adult nurse practitioner student and internal medicine resident physician attitudes towards interprofessional care. <i>J Interprof Care.</i> 2013;27:526-528.</p> <p>Chan EY, Deziel DJ, Orkin BA, Wool NL. Systems-based practice: learning the concepts using a teamwork competition model. <i>Am J Surg.</i> 2015;209:40-44.</p> <p>Tomolo AM, Lawrence RH, Aron DC. A case study of translating ACGME practice-based learning and improvement requirements into reality: Systems quality improvement projects as the key component to a comprehensive curriculum. <i>Postgrad Med J.</i> 2009;85:530–537.</p>

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