the proportional hazards model was confirmed visually using log-log plots and goodness of fit assessment. RESULTS/ANTICIPATED RESULTS: A total of 413 patients were identified for inclusion in the study. The majority of patients (83%) were of non-White race. Bivariate analysis revealed no significant associations between age, BMI, or race with diagnosis of VTE ($p = 0.75$, 0.49, and 0.28, respectively). Patients who had more than 2 risk factors for VTE had a significantly increased likelihood of VTE diagnosis ($p = 0.02$). There was a highly significant association between stage of USC and diagnosis of VTE ($p = 0.005$). Patients with stage III and stage IV cancer were 2.4 and 3.5 times more likely to develop VTE than patients with stage I cancer (95% CI: 1.09–5.30, 1.74–6.83, respectively). Of the 70 patients who were diagnosed with VTE, most were not postoperative (64.3%) and a large proportion developed clots while receiving chemotherapy (35.7%). Patients who developed VTE while on chemotherapy had a median Khorana score of 1 (IQR: 1, 2). In logistic regression modeling examining association of VTE with potential risk factors, covariates selected as significant for inclusion at the $p < 0.25$ level included cancer stage, composite number of risk factors, diabetes, hypertension, cardiovascular disease (CVD), and COPD. Composite risk score was identified to be a potential confounder of the relationship between individual risk factors and development of clot and was therefore left in the model for adjustment. After adjusting for other covariates, only stage 4 disease (OR: 2.66, 95% CI: 1.53, −4.64) and hypertension (OR: 2.90, 95% CI: 1.14–7.36) were associated with development of VTE and were included in the final model. No concerning violation of assumptions of logistic regression or interaction was identified. The Hosmer-Lemeshow goodness of fit test identified that the model was well-fit using 10 groupings ($p = 0.35$) and receiver operator characteristic testing showed that the model had acceptable discrimination with a ROC value of 0.7. The final model was found to classify 83.1% of participants correctly. Regression diagnostics identified 4 potentially influential covariate patterns. These patterns were eliminated from the model and no meaningful differences were noted. Patients contributed a total of 16,414 person months of analysis time in study follow-up. A negative, linear association was noted between stage of cancer and time to clot development. Long-rank testing revealed a significant difference in failure by stage of disease ($p < 0.001$) and presence of hypertension ($p = 0.03$). Cox proportional hazard modeling revealed that after adjustment for other covariates, only cancer stage and the presence of cardiovascular disease were significantly associated with time to failure. Patients with cardiovascular disease had a 2.02-fold increased risk of CVD compared to those without CVD (95% CI: 1.16–3.47). Those with stage 3 and 4 cancer were 3.19 (95% CI: 1.53-6.64) and 8.05 (95% CI: 4.11–15.78) fold more likely to develop VTE compared to those with stage 1 disease, respectively. DISCUSSION/SIGNIFICANCE OF IMPACT: Our study demonstrated that patients with USC are at high risk of developing VTE at all time points after their disease diagnosis, not just those who have undergone recent surgery. This risk is highest for women with hypertension, CVD, and stages III and IV disease. The fact that patients who developed clots on chemotherapy had an average Khorana score of 1, suggesting that they would not have been successfully risk stratified using previously published tools. To the best of our knowledge, this is the first study to report a high hazard for VTE in patients with serious endometrial cancer even several months after surgical staging. Although this is a retrospective study and cannot make inferences about VTE incidence, it generates the hypothesis that extended VTE prophylaxis may be beneficial in this cohort of patients regardless of their latency from surgical staging. Large randomized studies are needed to test this hypothesis.

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Acute care research competencies for clinical research professionals: A practitioner inquiry approach and assessment

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OBJECTIVES/SPECIFIC AIMS: Acute care research is a unique area of clinical research that demands specialized skills, knowledge, and talents from empathetic professionals working in the field. Building off existing competencies for clinical research professionals, the Cincinnati Acute Care Research Council (ACRC) developed additional areas of competency for professionals working in the acute care research discipline. METHODS/STUDY POPULATION: Qualitative data obtained from job shadowing, clinical observations, and interviews were analyzed to understand the educational needs and desires of the acute care research workforce. We then utilized Bloom's Taxonomy to build acute care research competencies that are measurable for job performance and build off of foundational clinical research professionals' domains and competencies developed by the Joint Task Force of Clinical Trial Competency. RESULTS/ANTICIPATED RESULTS: Results suggest 35 special interest competencies for acute care clinical research professionals under 8 common domains set by the Joint Task Force of Clinical Trial Competency. Additionally an approved ACRC tactic, from actionable learnings through community assessments throughout 2017, is the creation of a Task Force made up of acute care research Principal Investigators and Clinical Research Directors to focus on the identified training and professional development obstacles in the clinical research enterprise. DISCUSSION/SIGNIFICANCE OF IMPACT: The competencies developed for acute care research should serve as guidelines for training a workforce prepared for the challenges of conducting research with each acute audience, as its own vulnerable population. These competencies will guide development of a multi-pronged program of professional development that will include new hire onboarding, new hire on-job training, and ongoing on-job training.

2485

Advancing research professionals through competency assessments

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OBJECTIVES/SPECIFIC AIMS: Describe the framework for tier advancement of research professionals. Describe the various forms of assessments of competencies. How competencies are used to provide transparency into professional development opportunities. Discuss the results of the first tier advancement opportunity for research staff. METHODS/STUDY POPULATION: These processes were developed at Duke, an academic medical center with over 2000 active clinical research protocols and 300 new clinical trials per year. Roughly 500 employees are categorized into tiered classifications, allowing them opportunities for advancement through competency testing. Approximately 10% opted for tier testing, and their results will be shared. RESULTS/ANTICIPATED RESULTS: Competency assessments were developed for all 42 of Duke's research professional competencies, some using 2 modalities of testing. Almost 12% of the research professionals classified in tiered positions opted to attempt the tier advancement process. Of those, 37 completed, and the vast majority reached their desired tier. Results by competency will be provided. DISCUSSION/SIGNIFICANCE OF IMPACT: The use of objectively assessed competencies is an important step in the development of a workforce. By (1) maintaining alignment with industry standards for competencies, (2) holding staff to a high bar, and (3) offering a consistent approach to career growth, Duke is working to develop and maintain a workforce that supports high quality research.

2345

An electronic roadmap to customized human research training plans

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OBJECTIVES/SPECIFIC AIMS: To respond to the need for a simple tool to answer individual researchers questions: Exactly what training do I need to complete for my study and my role? Where can we go to find a comprehensive record of my research training? METHODS/STUDY POPULATION: Identify the factors that determine what training is required for each role (i.e., PI, coordinator, biostatistician) at the University, their role on the research study, type of funding, population being studied and responsibilities/duties on the research team. Develop an inventory of training required according to federal and local regulations and guidelines. Identify other related factors that ensure ongoing compliance for research professionals (i.e., medical licenses, CVs, immunizations, and credentials). Collaborate with programming professionals to explore and confirm the feasibility of such a Web site. Incorporate formal usability and pilot testing as part of the programming design process. Develop User Guide and Marketing and Launch plan for users and supervisors. Implement phased launch of the site with Google analytics, and evaluate the experience of phase I users. RESULTS/ANTICIPATED RESULTS: Three months user data and evaluation results demonstrated: 149 users created Training Roadmaps on the site. Users were from 67 different department codes, with the Department of Psychiatry the primary user. 20 users responded to a survey three months after launch. Research coordinators were the primary focus for phase I and represented almost half of the users. Survey respondents rated the site ease of use and clarity of the site as its

https://doi.org/10.1017/cts.2018.194 Published online by Cambridge University Press