age is 16 years; 73% have Crohn's disease, 77% have commercial insurance, 75% receive anti-TNF therapy, and 14% live in a rural area. Mean baseline perceived care quality (PACIC scale) is 76.9 (sd 16.3; out of 100); mean baseline perceived self-management skill (PIH scale) is 78.1 (sd 13.4; out of 96). On objective care quality measures, 59% have completed the HPV vaccine series, 32% have received an additional pneumonia vaccine; in the past year 68% have had a screening for mood disorders, 20% an emergency department visit for IBD, and 18% an IBD hospitalization. To date, the IBD clinical team has achieved 100% completion (intervention subjects receive MyIBD plus nurse facilitation) and 0% contamination (control subjects inappropriately receive MyIBD). DISCUSSION/SIGNIFICANCE OF IMPACT: Study results to date support the feasibility of the pragmatic, embedded trial design and indicate opportunities for improvement in care quality as perceived by patients and as measured by common preventive and acute care quality indicators. An individualized care plan supported with nurse facilitation may improve pediatric IBD care quality.

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Low kidney mass contributes to enhanced fractionated irradiation-induced renal hemodynamic dysfunction in mice

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OBJECTIVES/GOALS: Radiation nephropathy results in morbidity and mortality in patients receiving cancer treatment. In addition, low birth weight and low nephron number are associated with increased risk for chronic kidney disease. This study examined the development and severity of radiation-induced renal hemodynamic dysfunction in a low renal mass mouse model. METHODS/STUDY POPULATION: Male mice (C57Bl/6, 8–12-weeks) were used to determine a suitable radiation dose regimen. Mice were subjected to fractionated bilateral kidney irradiation with 5–6 fractions of an X-ray dose of 0, 6, 8, and 10 Gy at 24-hr intervals using a CT-image-guided irradiator. Body weight and mortality were monitored for 5 weeks in mice. In a separate set of experiments, the low renal mouse model, ROP Os/+, and their normal counterpart, ROP +/+ mice were subjected to 5 fractionated bilateral kidney irradiations at 24-hr intervals with an X-ray dose of 6 Gy. Renal blood flow was assessed from renal artery resistive index (RRI) over 5 weeks post-irradiation using an ultrasound system. Transcutaneous measurement of FITC-sinistrin clearance was used to determine glomerular filtration rate (GFR). RESULTS/ANTICIPATED RESULTS: The C57Bl/6 mice that received 5–6 fractions of 8 and 10 Gy had more than 50% mortality, while 100% of the mice exposed to 5 fractions of 6 Gy survived for 5 weeks. Body weight was also significantly decreased in mice exposed to 5 or 6 fractions of 8 or 10 but not 6 Gy radiation. Nonirradiated C57Bl/6, ROP +/+, and ROP Os/+ mice had similar baseline GFR and RRI. Irradiation of 5 fractions at 6 Gy decreased GFR and increased RRI in C57Bl/6 and ROP +/+ mice. Interestingly, following 5 fractions at 6 Gy irradiation ROP Os/+ mice had 25% lower GFR than wild-type ROP +/+ mice (946.3 ± 50.3 vs. 1232.9 ± 69.3 μL/min/100g BW, p DISCUSSION/SIGNIFICANCE OF IMPACT: Our study determined a suitable fractionated bilateral kidney irradiation dose regimen to evaluate radiation nephropathy. Data demonstrated that fractionated bilateral kidney irradiation leads to decreased renal hemodynamics in mice. We also demonstrated that irradiation caused greater renal hemodynamic dysfunction in low renal mass mice.

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Promotion of team science training for early career investigators: Evaluation and response to team science opportunities

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OBJECTIVES/GOALS: Given the challenges that early career research scientists face, especially preparing for promotion and tenure, the decision on whether to join a research team can be fraught. We developed a novel training to support informed decision-making regarding new scientific teaming opportunities. METHODS/STUDY POPULATION: A team science workshop entitled "Should I join this research team" was designed for early career investigators from varied disciplinary backgrounds. Learning objectives for attendees included 1) describing the role of team science in translational research, 2) determining if teaming opportunities are a good fit, and 3) crafting thoughtful responses to requests. The training was initially delivered to 38 attendees (11 K scholars) during a virtual national meeting. We adapted this training for in-person delivery to K and T scholars at our CTSA regional partners. Instructional methods shared across virtual and in-person modalities included self-reflection, think and share activities, and scenario application. In-person delivery also included short video clips and small group discussions. RESULTS/ANTICIPATED RESULTS: Multiple Likert-scale items were completed by workshop participants before and after completing the workshop to evaluate attendees' confidence in their perceived abilities to explain strengths and limitations of team science, identify characteristics of effective science teams, evaluate a team invitation, assess costs and benefits, negotiate collaborative team invitations, etc. Preliminary data from the virtual workshop suggests that 54.6% of scholars were either not at all or only slightly confident in evaluating a teaming invitation. After the workshop, 45.5% reported being very confident, and 9.1% reported extreme confidence in evaluating a team invitation. Evaluation of the in-person training, along with a comparison of virtual and in-person learning outcomes will also be presented. DISCUSSION/SIGNIFICANCE OF IMPACT: Our multimodal training is designed to equip early career investigators with the tools needed to evaluate and respond effectively to research team invitations. We believe this novel training will result in informed teaming decisions for early career research scientists.

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