and/or resistant Gram-negative bacteria (rGNB) within 14 days.

METHODS/STUDY POPULATION: Patients were recruited at 6 Michigan NPs from 09/16-08/18. VRE or rGNB colonization status was determined by culture swabs collected from multiple body sites at enrolment, day 7, and day 14. Our analysis focused on patients with no colonization at baseline, a perirectal swab collected at baseline, and at least one follow-up visit. The V4 hypervariable region of the 16S rRNA gene from bacterial DNA in each sample was PCRamplified and sequenced on the MiSeq platform. Sequencing results were then processed with the mothur bioinformatics pipeline to classify bacterial taxa present in each sample. Taxa typically associated with the skin microbiota were removed. The primary outcome was acquisition of VRE and/or rGNB within 14 days. Exposures of interest included patient and microbiota characteristics. RESULTS/ANTICIPATED RESULTS: Among 61 patients, 18 (30%) acquired AROs within 14 days of enrolment (3 VRE, 13 rGNB, 2 both) (Table 1). The baseline microbiota features differed significantly in those who acquired a new ARO. Of the major 8 phyla found across samples, patients who acquired an ARO were depleted in the number of phyla present (5.74 ± 1.20 vs 5.06 ± 1.43; p = 0.037) (Fig. 1). The log10-transformed relative abundance of Enterococcus was enriched in patients who acquired an ARO (−0.32 ± 1.47) compared to those who did not (−1.68 ± 1.76; p = 0.021) (Fig. 2). Patients who did not acquire an ARO tended to harbour more butyrate-producing bacterial taxa and strict anaerobes, although the differences were not statistically significant (relative abundance of butyrate producer: 29.49 ± 22.09 vs 22.05 ± 17.76; anaerobes: 64.78 ± 23.54 vs 53.68 ± 27.61). DISCUSSION/SIGNIFICANCE OF IMPACT: Microbiota metrics calculated from perirectal samples are predictive of ARO acquisition. The clinical utility of perirectal samples thus warrants further assessment.

Application of Design Sprint Methodology to Prototype a Proactive Outreach Tool for COPD Patients

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OBJECTIVES/GOALS: The primary objective of this study was to apply design sprint methodology to develop a proactive outreach tool prototype for patients with chronic obstructive pulmonary disease (COPD). METHODS/STUDY POPULATION: We utilized a 3-day process to align our team and key stakeholders behind answering the following question: “how might we empower COPD patients to understand their healthcare information, make decisions in partnership with their providers, and more easily manage their daily health?” On Day 1, we focused on understanding and defining the problem, and mapping the patient experience. On Day 2, we quickly brainstormed potential solutions, sketched our top ideas, and listed the solutions’ inherent assumptions. On Day 3, we created a prototype of our top solution and storyboarded each step of the prototype experience to review its potential usability and comprehensibility with patients. RESULTS/ANTICIPATED RESULTS: At the end of the design sprint, our team developed a prototype centered around personalized communication between COPD patients and providers. The prototype focuses on augmenting the current transitional care management (TCM) workflow in the post-discharge period. We are working to further develop the prototype prior to formal testing with care coordinators and patients. We anticipate that our prototype will assist in automating the current TCM workflow and facilitate contact with more patients post-discharge. DISCUSSION/SIGNIFICANCE OF IMPACT: Contact with patients is currently challenging due limited resources and the time sensitive nature of the TCM requirements. Automated patient outreach may be especially effective in engaging patients on a large scale, while also minimizing time and resources needed from healthcare staff.

Eye التعاونية وال_/وكاريون ـائدة (ArO) عند 30٪ من المرضى الذين أصيبوا بـ ARo في 14 يومًا من الـ enrolment (3 VRE, 13 rGNB, 2 كلاهما) (جدول 1). تم التعرف على اختلافات بين المرضى الذين شعروا بـ ARo بوجود أقل من البكتيريا في عدد الفيليا (5.74 ± 1.20 في مرضى ARo و 5.06 ± 1.43 في المرضى الذين لم يشخروا بـ ARo). تم استخدام المحتوى المتعادل للمناعة المولثة للـ Enterococcus بشكل مكثف في المرضى الذين شعروا بـ ARo (−0.32 ± 1.47) مقارنةً بالمرضى الذين لم يشعروا (−1.68 ± 1.76; p = 0.021). في المرضى الذين لم يشعروا بـ ARo، تم العثور على المزيد من البكتيريا المعطرة والبكتيريا الممنوعة من المتعادلة، على الرغم من أن الاختلافات لم تكن من حيث الأهمية الإحصائية. ملخص الأبحاث: الألوان البكتيرية المتماثلة في جلود البيئة، يمكن أن تكون ذات أهمية ميدانية في قياس تأثير البكتيريا المعرضة للـ ARo. من المتوقع أن تكون هذه التقنية فعالة في تحسين التواصل مع المرضى بشكل مكثف علىATER ARO ومساعدة على خفض وقت وموارد المستشفى.