

**Bucksbaum Institute for Clinical Excellence  
2012 Pilot Grant Final Report**

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**Engineering Patient-Oriented Clinic Handoffs (EPOCH)**

**Introduction/Background**

Estimates suggest that resident clinic handoffs affect approximately 1 million patients each year when resident PCP's graduate. Previous work, including our own, demonstrates patients are vulnerable during clinic handoffs. Patients are often lost to follow-up, have test results that are missed and seek acute care (ED or hospitalizations). In our clinic, despite receiving an appointment, a third of patients missed their first visit with their new PCP and ultimately were lost to follow-up. The following year, a targeted rescheduling intervention did not demonstrate improvement, highlighting the importance of investigating patient perspectives to improve outcomes.

To obtain the patient perspective, we completed over 100 phone interviews with patients shortly after the clinic handoff. These interviews revealed four overarching themes for barriers patients face: (1) breakdowns in the transition process (i.e. patient unaware of transition); (2) clinic visit logistics (i.e. difficulty rescheduling appointments); (3) doctor-patient relationships (i.e. difficulty building rapport with new PCP); (4) patient safety issues (i.e. missed tests). After the handoff, only half of patients could correctly identify their new PCP's name. However, patients who named their new PCP were more satisfied with their clinic handoff process.

Patients also gave insight into potential solutions during interviews. Patient notification of the transition by letter or via telephone visit with the new PCP were both effective. Patients who received a letter or had a telephone visit were more likely to correctly identify their new PCP's name, report their new doctor assumed care for them immediately and be satisfied with the communication between physicians. Patients who felt valued in their role as an educator of residents and were aware of the training mission were more understanding of the clinic handoff. Therefore, recognizing patients as resident teachers may be important. Patients also desired more personal information about their new PCP to help establish rapport.

Based on our findings, we have designed a Patient Transition Packet to improve patient experiences. The Packet includes a certificate of recognition for a patient's role in teaching residents, a welcome letter from the new resident PCP with a photo and personal information, and a Doctor Transition Patient Visit Preparation Tool to improve communication with the new PCP. We originally planned to develop a teaching video for patients about the process but then altered this plan to make a patient comic due to patient barriers to video watching. We also developed a teaching video for residents illustrating patient-centered methods to strengthen the doctor-patient relationship during clinic handoffs. Our specific aims are:

**Aim 1:** To implement a Patient Transition Packet, Doctor Transition Patient Visit Preparation Tool, patient comic and patient-centered teaching video in our residency continuity clinic handoff

**Aim 2:** To evaluate the impact of this patient transition packet on the following patient outcomes during the handoff: (a) Awareness of the transition; (b) Ability to correctly identify PCP after the handoff; (c) Missed visits with the new PCP; (d) Satisfaction with the handoff; (e) Patients lost to follow-up 6 months after the handoff

## **Methods**

***Packet development:*** We created a packet based on the data from patient interviews. We identified patient advocates from the interviews and received feedback from them on the packet prior to implementation in telephone focus groups.

***Patient Comic development:*** We developed a comic for patients about the clinic handoff to educate patients about what to expect and help empower them in the transition (appendix 1). We partnered with a nurse who is a comic book artist to draw the comic and then incorporated feedback on the comic from several patient advocates.

***Teaching Video development and Patient-Centered toolkit for educators:*** We developed a teaching video for residents on patient perspectives of the clinic handoff called, “Putting the Patient First: Engineering Patient-Oriented Clinic Handoffs (EPOCH)”, to help them deliver patient-centered care while assuming care for new patients after the handoff. We have posted it publicly on the internet (<http://bit.ly/epochvideo>) to share with other educators. We will use it this spring with University of Chicago and Northshore residents in teaching sessions and with educators in a clinic handoff workshop at the spring Association of Program Directors in Internal Medicine (APDIM) conference. We also created a teaching video checklist to assist educators with teaching sessions. We plan to submit the teaching video and checklist to AAMC MedEd portal for publication. We compiled the teaching video, video checklist, patient comic, patient transition packet and a newly created pocket card “TAKE CARE: 8 Patient Centered Ways to Assume Care for Clinic Handoff Patients” (appendix 2) into a patient-centered toolkit for educators at our APDIM workshop.

***Toolkit implementation:*** The packet was sent to all patients identified by graduating residents prior to the clinic handoff in June of 2012. The comic will be sent May 2013.

***Evaluation:*** A trained research assistant conducted semi-structured telephone interviews with patients shortly after the clinic handoff to understand the impact of our tools on the outcomes specified above and any suggestions for improvement. Interviews were recorded and transcribed. Patient outcomes (number of patients lost to follow-up at six months and number of patients missing their first visit with their new PCP) were determined by performing chart review. Likert scale questions and outcomes were summarized descriptively and compared using Fisher’s exact and chi square tests where appropriate. Our prior cohort of patients (who did not receive the packet) served as a control group.

## **Results**

Interviews were conducted with 113 of 264 identified high-risk patients three to four months after the clinic handoff. The majority of patients (77%), were able to correctly name their PCP and 99% reported they were aware of the clinic handoff. Half (44%) of the patients interviewed recalled receiving any part of the transition packet. Out of the patients who recalled the transition packet, 70% of them agreed the information helped them build a relationship with their new physician, 70% agreed the packet acknowledged their role as a teacher, and 70% agreed the packet helped them prepare for their first visit with their new physician. Patient comments about the packet were also positive. When asked about the goodbye letter she received from her previous physician one patient commented, "I thought that was a very nice touch because I know that she's extremely busy and I appreciated the gesture on her part." One patient commented about the welcome letter, "It was nice. I knew who the new doctor was-- you know I wasn't going to see my regular doctor so I knew not to look for her." Another patient when asked about the certificate of recognition stated, "I thought that was really nice."

Patient satisfaction with the handoff was not different from the previous year but was high overall. In the pre-packet year (2011) 80% of patients were satisfied with the communication between the old and new doctor as compared to 74% in the post-packet period ( $p=0.39$ ). In the pre-packet year, 63% of patients were satisfied with the process of changing doctors overall compared with 68% in the post-packet year ( $p=0.43$ ). There was an improvement in the number of patients lost to follow-up six months after the handoff after the Patient Transition Packet was implemented from 22% pre-packet to 12% post-packet ( $p<0.01$ ) There was also an improvement in the number of patients who missed the first visit with their new physician from 43% pre-packet to 31% post-packet ( $p<0.01$ ).

***Future Steps:*** In the following year (2013), we will attempt to evaluate if our patient comic was helpful to patients during the transition and improved patient-centered outcomes by performing telephone interviews again. We will also assess if the comic helps draw attention to the packet. We plan to interview patients closer to the time packets are sent to eliminate recall bias. After analysis, we will incorporate patient feedback into improving these tools. After using the patient-centered teaching video we will survey educators who attend the APDIM workshop and residents at both University of Chicago and Northshore about its' effectiveness as a teaching tool.

## **Discussion**

The patients who recalled the packet, found it very effective and helpful during the transition. There was also an improvement in the number of patients lost to follow-up after the clinic handoff once the Patient Transition Packet was implemented and fewer patients missed their first visit with the new physician. Thus, the patient transition packet was successfully implemented and helpful to patients during the clinic handoff. It is also may be an effective way to encourage patients to return to the clinic for care after the handoff and keep their first appointment with their new physician.

We are hoping with implementation of the comic we will improve recall of the packet and draw more attention to it. We are also hoping it will help patients understand the clinic handoff better.