# Closing the Referral Loop: Pilot Study to Improve the Ambulatory Referral Management Process

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## Background

- More than 105 million referrals of Medicare beneficiaries are made between primary care and specialist physicians in the U.S. annually.[1]
- Care coordination and the relationships between primary care physicians, specialists and patients have become complex as a result of multiple providers working in different settings and the widespread use of disparate electronic health records (EHRs).[2]
- 1/3 of MDs had trouble receiving referral information in a timely manner.[3]
- 68% of specialists received no information from the PCP prior to referral visits.[3]
- 25% of PCPs had not received information from specialists  weeks after visit.[3]

## Aims

Improve the efficiency and effectiveness of the referral process between the primary care physician (PCP) and specialist:

- Clearly state PCP reason for the referral
- PCP referral sent timely with consistent supporting information
- Specialist report addresses reason for the referral
- Specialist report has timely completion and report receipt
- Improved satisfaction of PCP, specialist, and patient
- Increase EHR use to improve referral process and provider communication
- Improve timely closure of referrals

## Measures

**Percentage of:**

1.Closed referrals

2.Urgent referrals completed within 7 days

3.Priority referrals completed within 14 days

4.Routine referrals completed within 28 days

5.Referrals with specialist reports sent within 7 days of patient appointment

6.Clinical questions answered by the specialist

**Other:**

7.PCP satisfaction with the referral process (5 survey questions, 5-point Likert scale)

8.Specialist satisfaction with the referral process (6 survey questions, 5-point Likert scale)

9.Patient satisfaction with the referral process (6 survey questions, 5-point Likert scale)

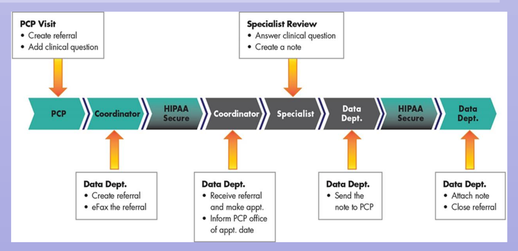
## Methods

- PCPI collaborated with The Wright Center for Graduate Medical Education to sponsor the Closing the Referral Loop (CRL) pilot project.
- Used Institute for Healthcare Improvement's (IHI) Breakthrough Series Learning Collaborative Model over 18 months.
- Twelve (12) "dyads" (PCP and specialist), as well as their staff participated in the pilot project, collected data on a defined set of measures, attended monthly improvement webinars and in-person meetings to share challenges, and shared solutions and lessons learned.
- Change package included shared care compact with agreed upon referral types including time stratified definitions; clarification and response to the clinical question; evaluation of specifications used in electronic communication to share patient information and enhance EHR interoperability; and messaging and the exchange of health information.

## Communication Methods

| | Provider Type | |
|---|---|---|
| | PCP (n=38) | Specialist (n=22) |
| **Method** | %n | %n |
| EHR only | 18% | 36% |
| EHR, Fax, and/or other method | 18% | 27% |
| Fax and/or other method | 8% | 0% |
| Fax only | 55% | 36% |

## Typical Referral Process




## Results

In comparing pre-intervention data versus post-intervention data, there were significant improvements in the percentage of closed referrals post-intervention (from 40% to 70%), the percentage of referrals closed within 7 days of the specialist appointment (from 40% to 70%) and the percentage of referrals with clinical question answered (from 50% to 75%). As comfort with the referral management system increased, the need for the Urgent referral type decreased and was eliminated for future recommended measures.

| | Pre (n=110) | Post (n=240) |
|---|---|---|
| **Referral Type** | | |
| **Urgent (3-7 days)** | 24% | <5% |
| **Priority (7-14 days)** | 10% | <5% |
| **Routine (14-28 days)** | 65% | 95% |
| **Referral Status** | | |
| **Open** | 60% | 30% |
| **Closed** | 40% | 70% |
| **Referrals closed in a timely manner (Specialist visit summary received by PCP within 7 days of appointment)** | 40% | 70% |
| **Referrals with clinical question answered by specialist.** | 50% | 75% |

## Discussion

- At the start of the pilot, EHR interconnectivity was minimal. Most EHRs could only accomplish a few of the steps in the referral process.
- **Lack of EHR interoperability was the most significant barrier to closing the referral loop.**
- By the end of the pilot, most PCP EHRs could send the referral request and Summary of Care Record.
- Dyads that could not communicate using existing EHR configurations used fax or implemented a Health Information Service Provider (HISP) to facilitate communication.
- EHRs were unable to track referral process steps including receipt of the referral, patient appointment date, patient completion of the specialist appointment; these process steps were tracked manually.
- Communication between the PCP and specialist with the same EHR were enhanced by the utilization of direct messaging minimizing the need for frequent phone calls.
- The use of the EHR as the only method of communicating did not increase during the project.

## Limitations

- Small geographic region
- Greater than expected time needed to complete care compacts and referral process mapping
- Limited capacity to assess patient engagement and understanding of and satisfaction with the referral process.
- Physicians' availability for collaborative calls and meetings. First collaborative experience for many participants.

## Recommended Measures

Based on the pilot study experience, the following measures are recommended for use in efforts to improve care coordination between primary care and specialist offices.

| Recommended Future Measures |
|---|
| 1. Total number of referrals by type: |
| ○ Priority (7-14 days) |
| ○ Routine (14-28 days) |
| 2. Number of Referrals closed in a timely manner |
| 3. Referrals with an answer to the question posed by the primary care provider |
| 4. Patient satisfaction with the referral process |
| 5. Primary care provider satisfaction with the referral process |
| 6. Specialist satisfaction with the referral process |

## Conclusion

- With the adoption of alternative payment models, ambulatory referrals will likely become more important to policymakers, clinicians and others as they attempt to increase quality of care and control health care spending by retaining patient referrals within organizations or networks.[4]
- Referred patients may experience harm if necessary treatment is delayed or does not occur, or from redundant testing.
- The findings of the CRL pilot project clearly show that implementing a few key strategies can have a significant impact on the quality of the referral process, as well as the number of timely, completed referrals and physician satisfaction.

## Disclosures

The pilot study was funded by PCPI and The Wright Center for Graduation Medical Education. There are no financial disclosures.

## Future Considerations

- PCPI and The Wright Center created the CRL Tool Kit, which provides guidance in improving care coordination and a change package to improve referral management. (See 'Supplemental Material.')
- Tool Kit should expedite setting up electronic messaging allow greater focus on patient safety related challenges.
- Phase 2 may examine the impact and factors related to "no shows", redundant testing and diagnostic error on patient safety.
- Given pilot focused on cardiology, future projects could explore the applicability of the change package and workflow improvements to other specialties, such as nephrology, neurology, oncology, radiology and pathology.

## Supplemental Material

Closing the Referral Loop Tool Kit. PCPI and The Wright Center for Graduate Medical Education, 2017. http://www.thepcpi.org/programs-initiatives/quality-improvement/closing-the-referral-loop-project/

Recorded webinar: http://www.thepcpi.org/education/webinars/recorded-webinars/

## References

1. Anderson, G. (2010) Chronic care: Making the case for ongoing care. Robert Wood Johnson Foundation. Retrieved from http://rwjf.org/content/dam/web-assets/2010/01/chronic-care.

2. Barnett, M.L., Song, Z., Landon, B.E. (2012) Trends in physician referrals in the United States, 1999-2009. Archives of Internal Medicine. 172, 163-17

3. Audet, A-M et al., Measure, Learn, and Improve: Physicians Involvement in Quality Improvement Health Affairs, May/June 2005, Commonwealth Fund National Survey of Physicians and Quality of Care

4. Ibid Barnett.

## Acknowledgements

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