

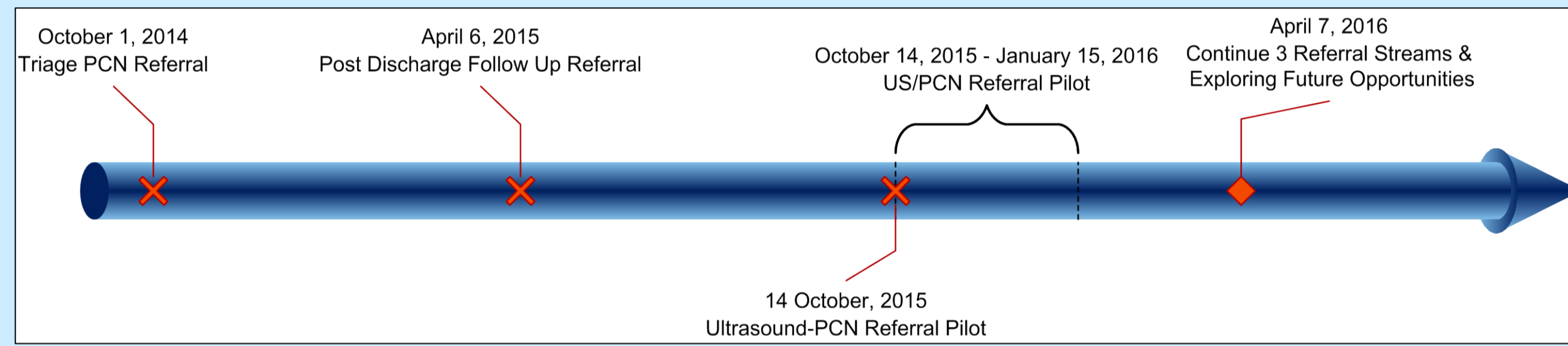
# Integration of the Primary Care Network into the Community Ultrasound Referral Process for the Reduction of Repeat Visits to the Rockyview Emergency Department

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## BACKGROUND: EMERGENCY DEPARTMENT AND PRIMARY CARE NETWORK

The Rockyview General Hospital Emergency Department (ED) has been collaborating with Calgary West Central Primary Care Network (CWPCPN) since 2013. Throughout this time several ED to PCN referrals streams have been developed:

- Triage Referrals (October 2014): Lower acuity patients referred to see PCN MD instead of ED MD (aimed at appropriate care and use of ED vs. Primary Care)
- Discharge Referrals (April 2015): A post-discharge follow up option for unattached ED patients to receive follow up with a primary care physician or for patients who are unable to access a timely appointment with their family physician.



## BACKGROUND: EMERGENCY DEPARTMENT AND COMMUNITY ULTRASOUNDS

Ultrasound Result Follow Up was identified as the next area of opportunity in this collaboration. Planning for this referral stream began in Spring 2015, following the successful implementation of the discharge follow up referrals.

Prior to implementation of the ED/PCN ultrasound referral process the current state of ultrasound services at RGH ED:

- Available daily from 0730-2315.
- After hours (2315-0730) the MD determines clinical urgency. If appropriate, the patient is given a next day ultrasound appointment at a community imaging provider (CIP) and is discharged home with instructions to return to ED for results follow up.

Problems with this system:

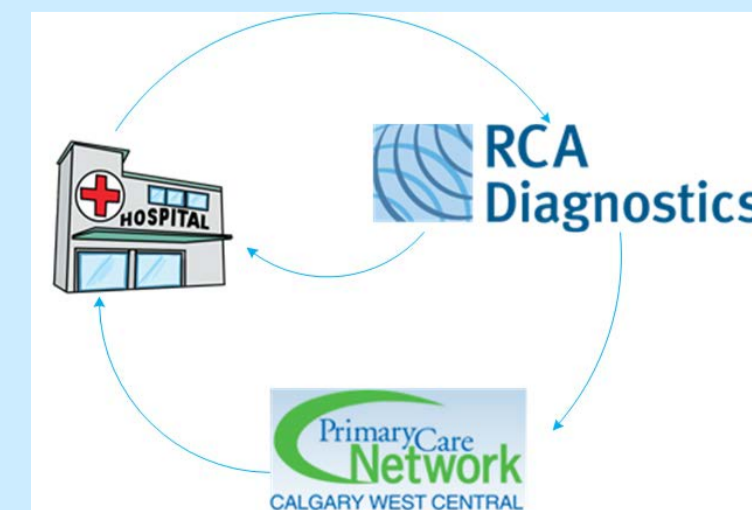
- Increased patient volumes as the process requires two separate ED visits
  - About 2-4 ED patients daily were returning for Imaging Tests results (although this was not evenly distributed throughout the week, for example there could be 8 on one day).
- Not patient centered - inconvenient; cost and time spent on travel and in the ED
- Continuity of care
- Appropriateness

## OBJECTIVE

To develop an innovative patient centered approach to provide timely, appropriate patient follow up and treatment outside of the ED.

Partners involved:

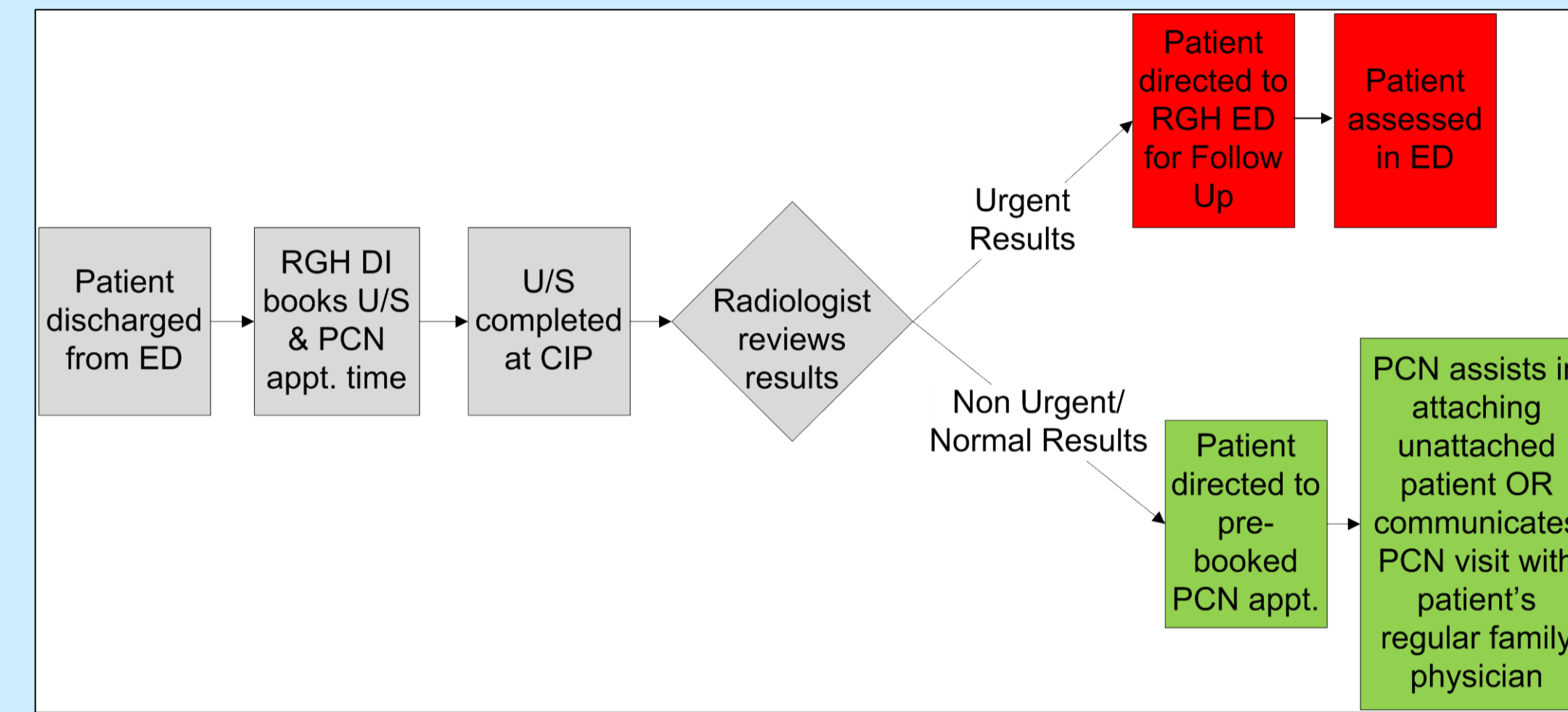
- RGH Emergency Department
- RGH Diagnostic Imaging Department
- Primary Care Clinic: Calgary West Central PCN
- Community Imaging Provider: RCA Diagnostics



## METHODS

ED to Community Ultrasound Process

- PCN was integrated into the existing process (shown below)
- An algorithm was developed to determine which patients were appropriate for the PCN versus ED follow up (shown to the right) and this was incorporated into the process map



## RGH ED/US Management Algorithm

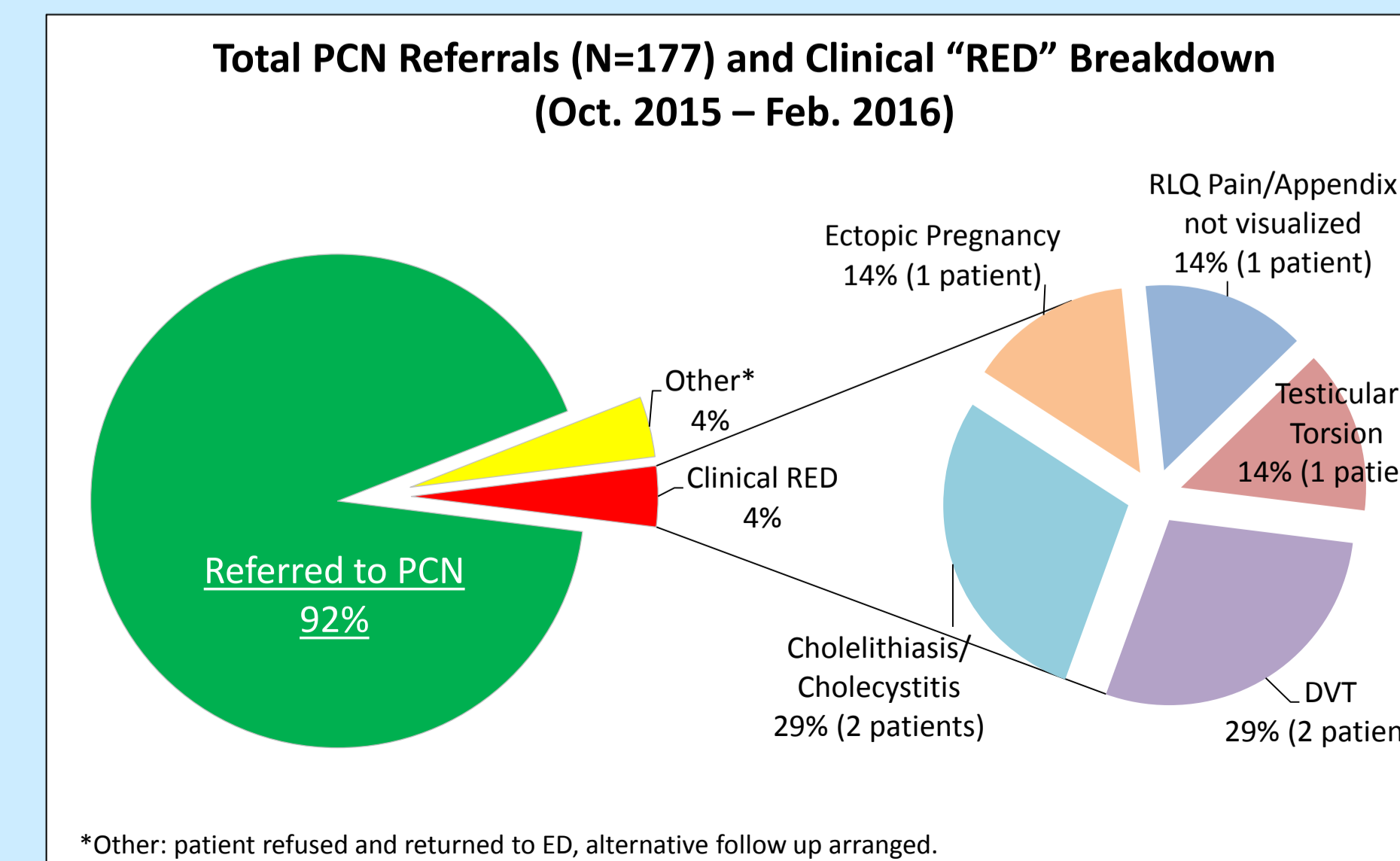
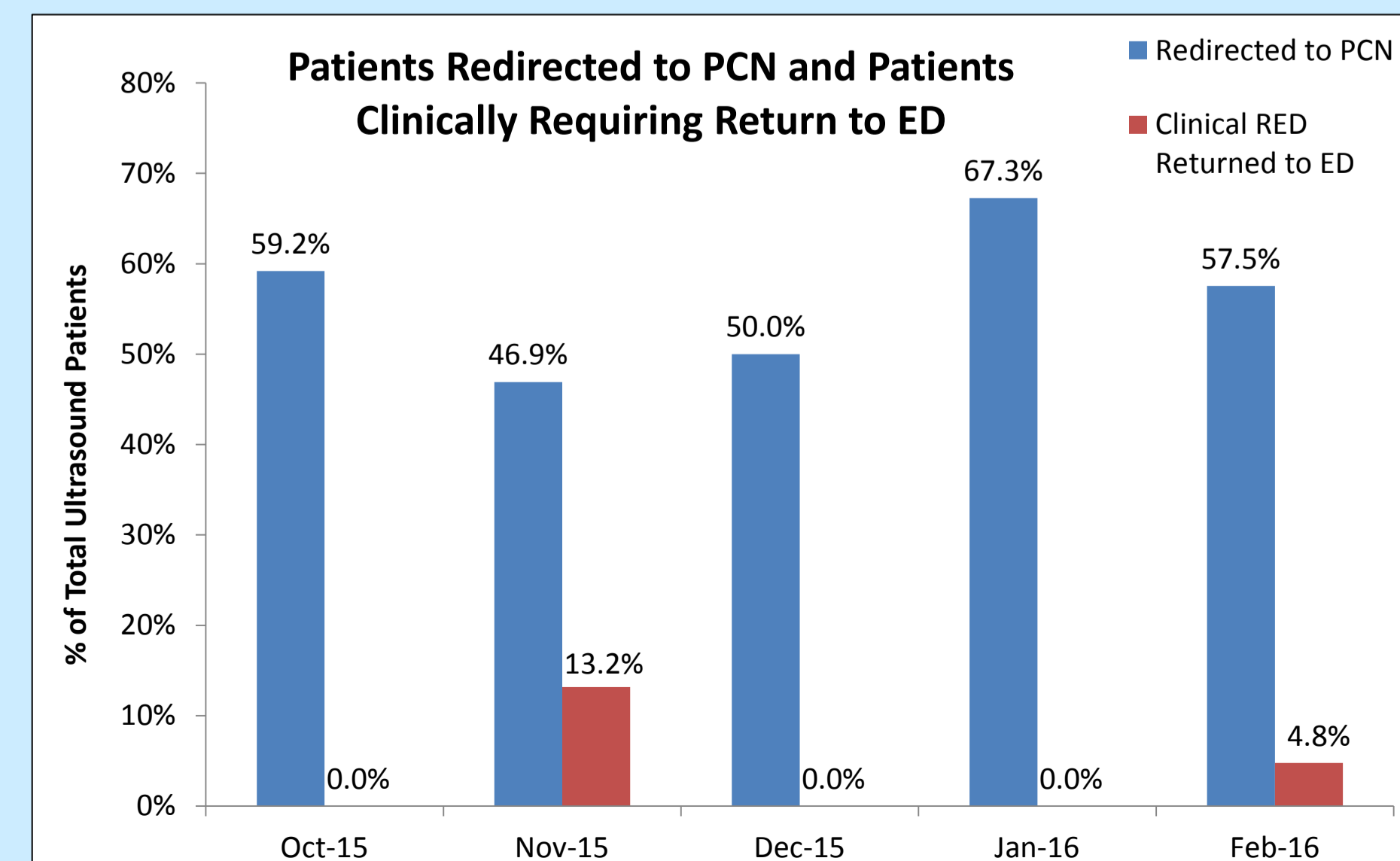
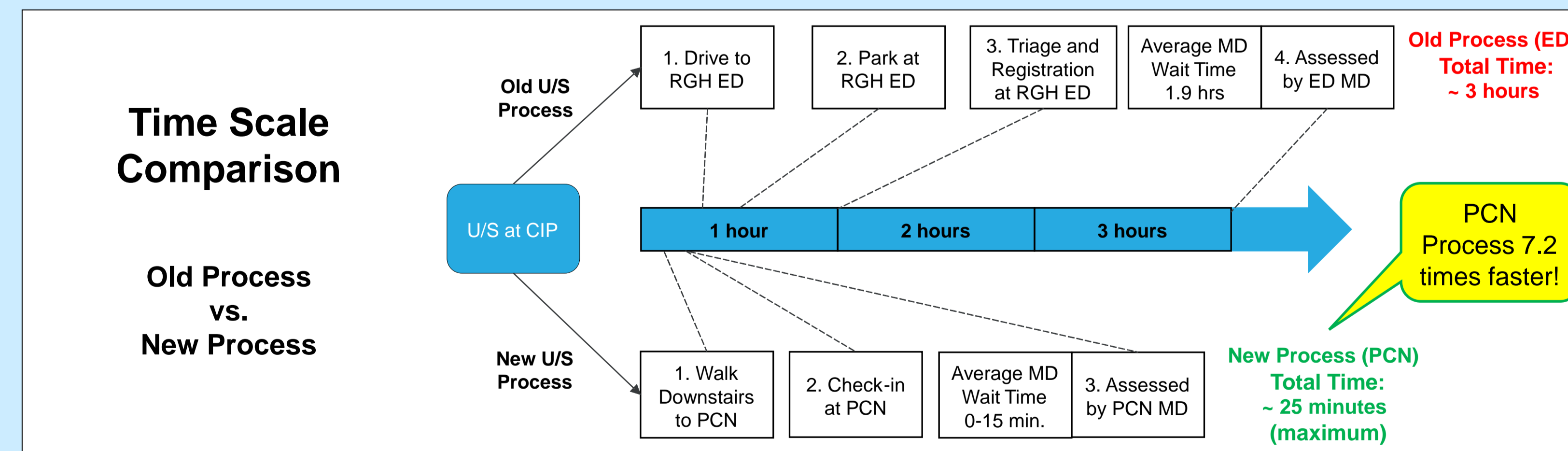
US Category	Indication	Results	Pathway / Follow up
Abdomen	R/O gallstones	Negative	PCN
	RUQ/epigastric pain	Gallstones but wall <4mm and Patient reported NO PAIN	PCN
Abdomen & Bladder	R/O kidney stones	Negative	PCN
	Flank pain, hematuria	Positive for kidney/bladder stones	Emergency
Pelvis	R/O Ovarian cyst	Normal	PCN
	R/O hernia, appendix	Simple ovarian cyst	PCN
	RLQ or LLQ pain, Groin lump	Complex Ovarian Cyst	Emergency
		Ovarian torsion or tumor	Emergency
Pelvis	R/O ectopic/miscarriage + pregnancy test bleeding	Positive for bladder tumor	Emergency
		Positive for hernia	Emergency
Extremity	R/O DVT	Negative	PCN
	Swelling, leg pain	Positive	Emergency

Red Results directed to RGH ED all other patients to Westbrook PCN post Ultrasound.

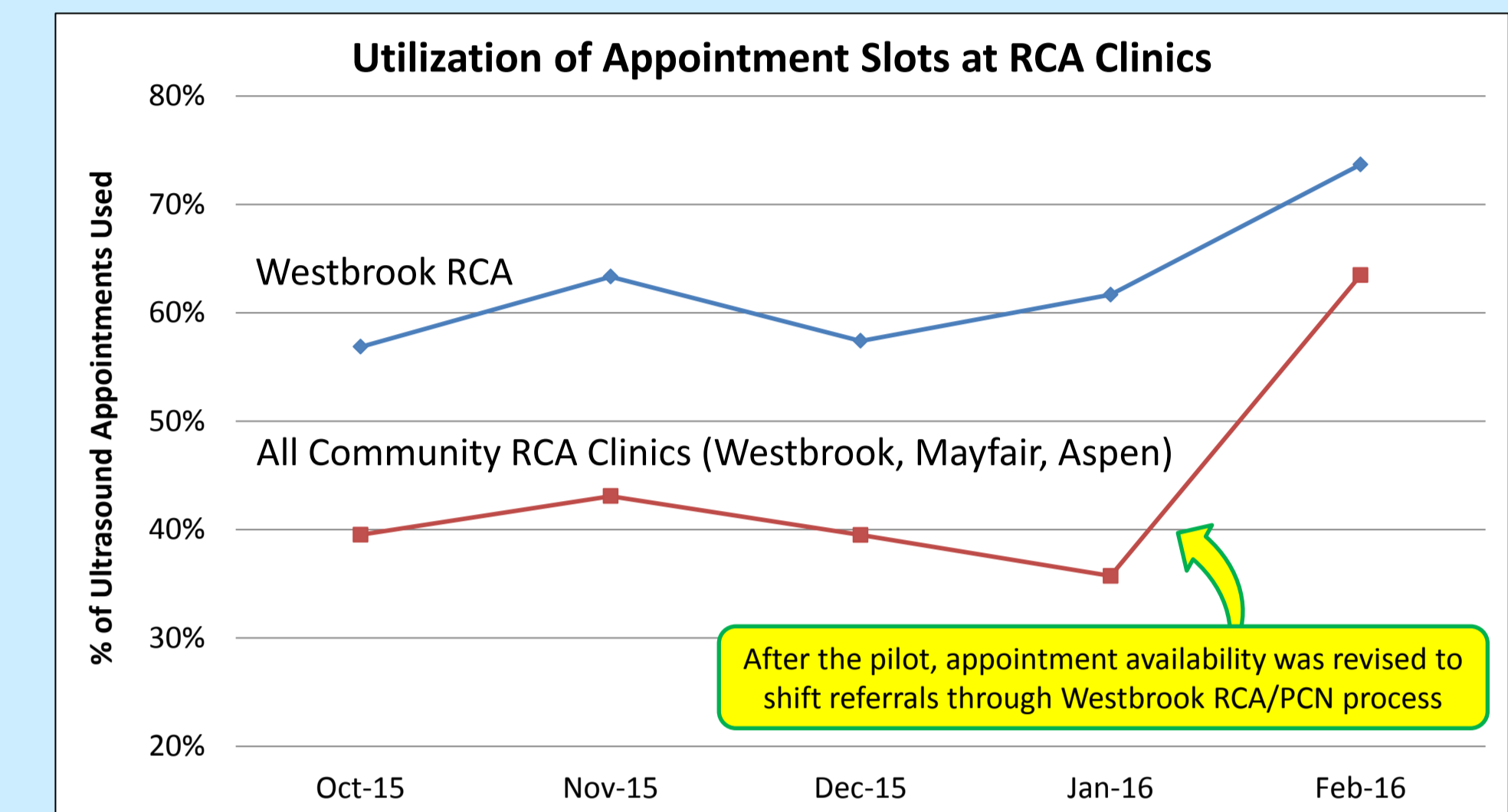
## RESULTS

Highlights of pilot phase (October 14, 2015 – January 15, 2016):

- Approximately 50% of patients receiving next day ultrasounds were booked through the new follow up process
- Of these referred patients approximately 95% success rate, which means that 95% of patients had normal or non-urgent results and were appropriately referred to primary care
- 5% had urgent results requiring ED follow up (Clinical "RED" indication)
- After pilot evaluation, decision made to continue process, with minor revisions to appointment slot availability



## RESULTS (continued)



Benefits of New Process:

- Patient centered
- Convenient, timely and cost effective
- Enhanced continuity of care
- More appropriate care
- More efficient resource utilization

"From a primary care standpoint one of the things that we are proud of is our ability to provide patients with the appropriate level of support in a community setting. Providing patients with the care they need in an accessible, community setting is something that our clinic strives for and the opportunity to do this for these patients has been tremendous."

-PCN Clinic Director

## NEXT STEPS AND FUTURE OPPORTUNITIES

- Increase utilization of Westbrook slots and further decrease returns to ED
- Exploring if all of these patients require next day ultrasounds?
  - Could increase use of ED D/C Follow Up Referrals for this patient population. Patient would be clinically reassessed at the PCN to determine if other imaging/investigations warranted. If ultrasound still warranted, patient could be scheduled at Westbrook RCA. Potential to avoid unwarranted tests?
- Positive DVT patients – collaboration with PCN and Anticoagulation Clinic for management – do they really need to return to ED?

## CONCLUSION

The integration of the PCN into the community ultrasound process has been a success in reducing repeat ED visits, as well as ensuring appropriate, patient centered care for this population in the community. The following keys to success have been identified:

- Implemented what the stakeholders were asking for!
- Built on already existing community process – easy transition, built for success
- Ongoing monitoring – weekly meetings at first, data analyzed monthly
- Communication amongst all stakeholders
- Ongoing changes documented and communicated throughout
- Leadership and physician engagement was vital
- Process is patient centered and it just makes sense!

## \*CONTACT INFORMATION

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