

Electronic Medical Record Modifications to Support Integrated Routine HCV and HIV Screening and Linkage to Care in Five Community Health Centers in Philadelphia, PA

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ISSUE

- EMRs have the capacity to simplify and automate portions of testing and linkage to care in health centers
- November 2013- NNCC integrated dual routine HCV and HIV testing in a network of federally qualified health centers in Philadelphia, PA. As part of the model, there were multiple modifications to the shared EMR
- Goals of the modifications were to increase adoption across testing sites, decrease missed opportunities and improve patient care

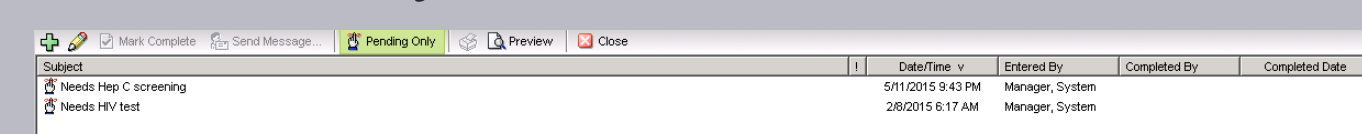
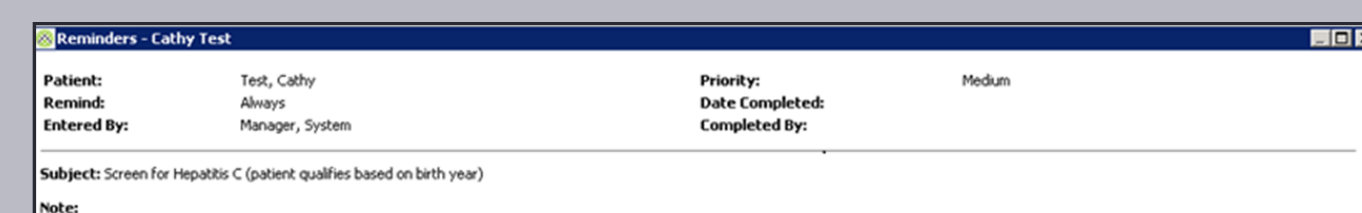
METHODS

- Testing model: Medical assistant initiated laboratory-based reflexive testing
- Testing eligibility:
 - HCV: ≥18 years old without previous HCV diagnosis & subsequent risk-based testing due to changes in drug use, housing, tattoos/piercings
 - HIV: annual testing on patients ≥13 years old, without HIV diagnosis or test within last 12 months & more frequent testing based on reported risk factor or opt-in
- Linkage to Care Coordinator: facilitates transition and retention for positive patients through the continuums of care

EMR MODIFICATIONS

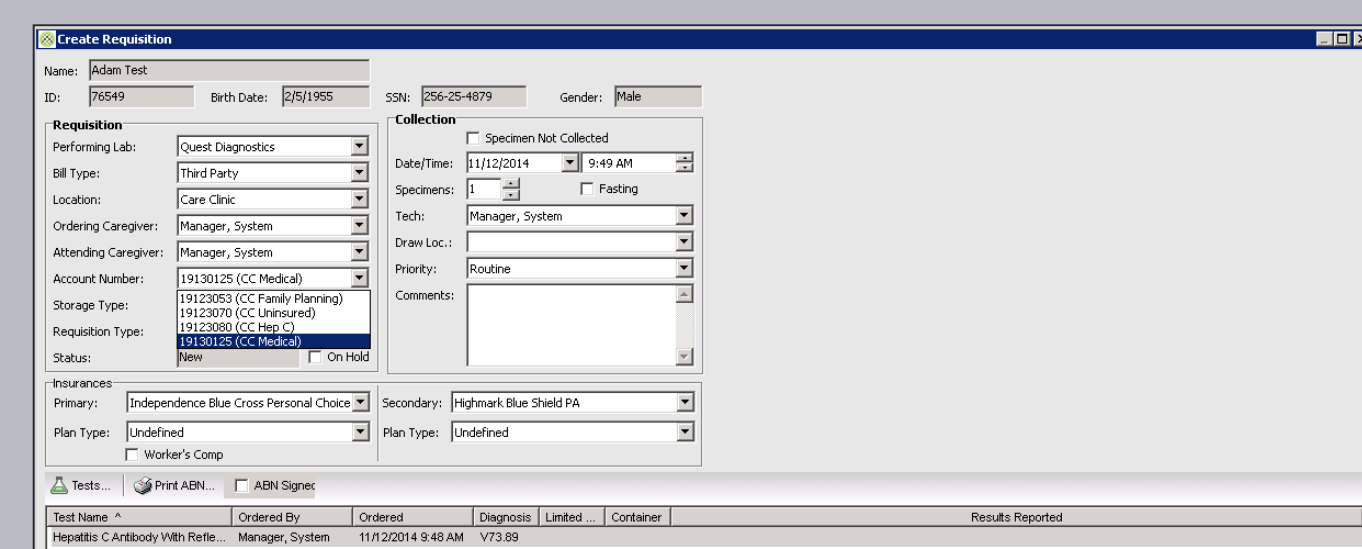
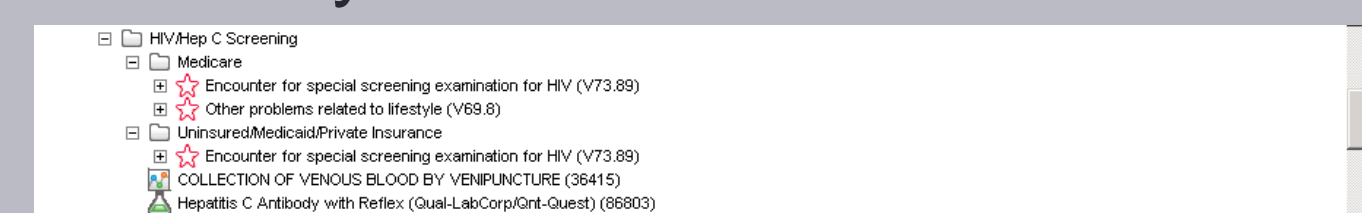
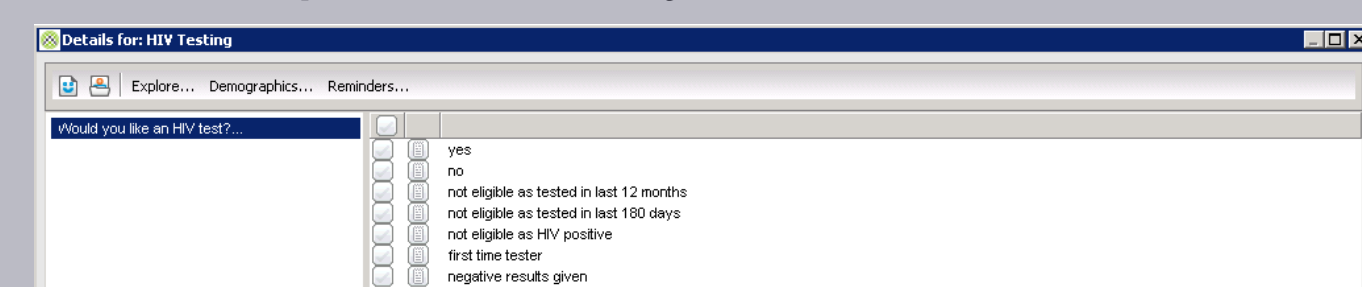
Identification of eligible patients

- Testing
 - One-time report to identify patients born 1945-1965 eligible for HCV testing
 - Daily query to identify patients eligible for HCV and HIV testing with appointments the next day



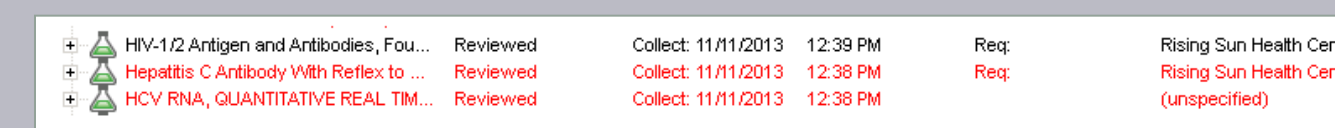
Obtaining test

- Documentation
 - MA enter patient's response to HIV test offer, as per Pennsylvania law
 - HIV and HCV folder to prepopulate laboratory order
 - Grant funded account for HCV and HIV tests performed on uninsured patients created with commercial laboratory



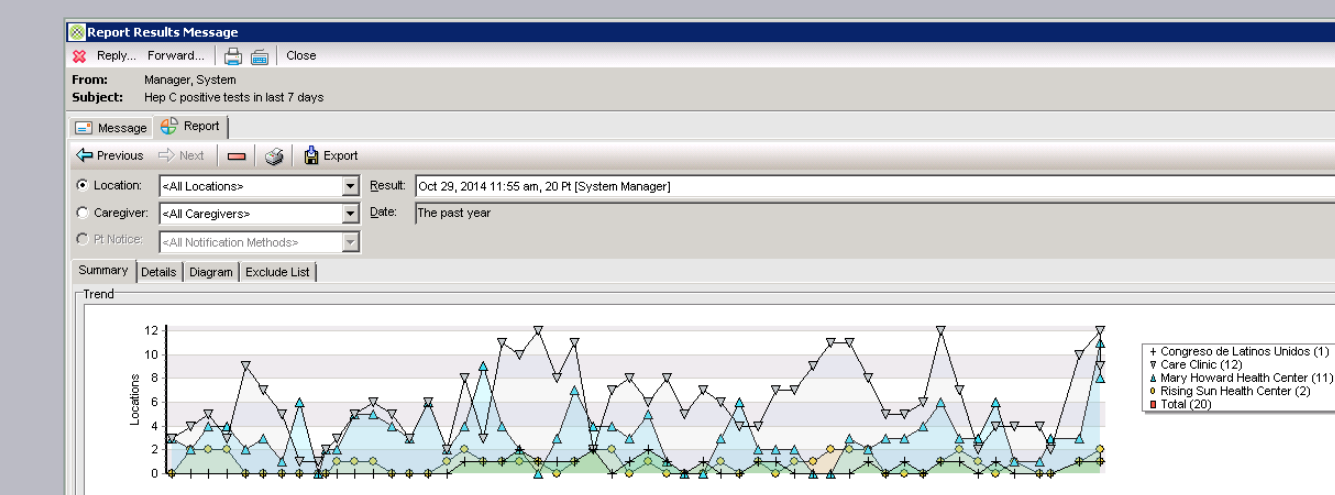
Documenting results

- Test results
 - Commercial laboratories interface with EMR. Results automatically uploaded into patient's chart and abnormal results are highlighted in red
 - Automatic reminder generated based on detectable HCV-RNA values identifies patients eligible for intensive linkage services



Quality control and tracking

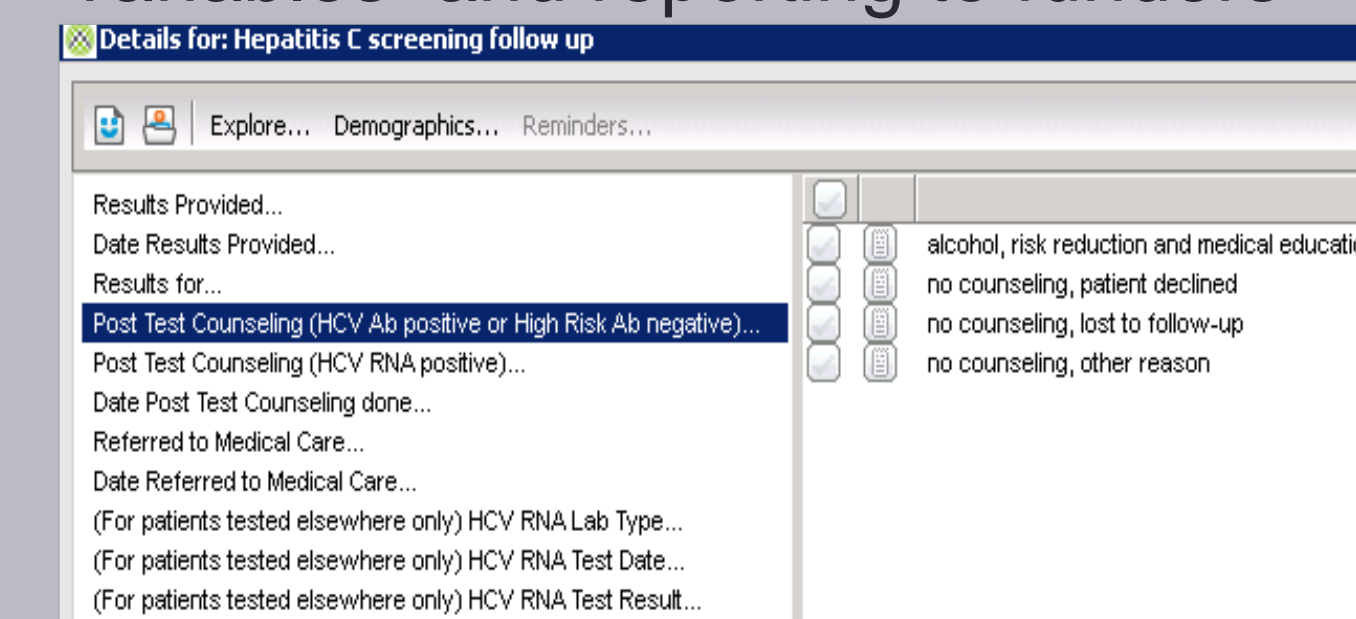
- Weekly reports show numbers of patients tested to monitor project progress and names of patients testing positive to track through cascade of care
- Flow sheet : identify patients needing confirmatory testing; HCV treatment pre-authorization process; and clinical outcomes if HCV and/or HIV treated at two test and treat sites



Options	File Dates								
Template: Hep C & HIV Screening	Display: Date								
Dates: All past dates									
Spreadsheet	Graph								
	8/1/2013	7/18/2013	7/11/2013	6/20/2013	4/29/2013	3/8/2013	3/4/2013	2/14/2013	1/31/2013
Hepatitis Antibody									>11.0
Hepatitis C RNA	HCV Not Detected		HCV Not Detected	<15				834260	
Hepatitis Genotype								13	

Quality control and tracking (continued)

- Templates to collect discrete data variables and reporting to funders
- Project evaluation, dissemination through customized data extraction



RESULTS

- September 2013-February 2015:
 - 4,893 HCV and 8,809 HIV tests were performed, up from 2,168 HCV and 4,723 HIV tests performed at baseline, 3/1/2012-8/31/2013
 - 601 (12.3%) patients had positive HCV-antibody tests, 584 (95.6%) had HCV-RNA test, 406 (69.5%) were found to have current infection (overall prevalence=8.3%), 231 (56.9%) were seen for HCV care
 - 68 (0.8%) patients were HIV-positive and 60 (83.3%) linked to care

CONCLUSION

- EMR modifications can promote integrated testing and linkage to care, which have beneficial individual and public health implications
- EMR modifications efficiently identified eligible patients, facilitated reimbursement and helped track patients through the continuums of care