Delivering HCV Cures in the FQHC Medical Home: Training a New Generation of Providers

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Background

- Much attention has been given to training primary care providers to deliver HCV care, but little research has shown effective strategies for doing so.
- Due to increased safety and efficacy of Direct Acting Antivirals (DAAs), and the large number of HCV-infected presenting for care, treatment of HCV may safely be undertaken by non-specialists in the primary care setting.

Methods

- In 2013, we developed an HCV treatment program within our urban, FQHC clinic system, serving a very low income (89% < 200% FPL and racially/ethnically diverse patient population.
- The necessity for more treating providers prompted incorporation of HCV care and management into formalized clinical training programs:
  1) Robust HCV component added to our HRSA/SPNS-supported HIV Treatment Training track for residents & PCPs
  2) Implementation of a California Department of Public Health-funded 6-month training track for PCPs, including mid-level providers.
- ***Continuum of Care***: After testing HCV Ab+ in clinics and alcohol/drug treatment programs, specimens were collected for HCV RNA testing. Linkage to care staff identified and addressed barriers, connecting HCV-infected patients to care; a patient navigator encouraged retention in care and assisted with prior authorizations. Providers used non-invasive fibrosis assessment methods & treated according to published guidelines.
- HCV providers and navigators participate in weekly telehealth-based didactic and clinical case discussion sessions using the Project ECHO model (see Figure 4).
- Outcome data were collected prospectively.

Table 1. HCV+ Patient Demographics (N=473)

Gender	Participants, N (%)
Female	155 (33%)
Male	318 (67%)
Male to Female	2 (0.4%)
Born between '45-'65	
Yes	342 (72%)
Fibrosis	
F3-F4	264 (56%)
HIV Co-infection	
Yes	33 (6.3%)
Insurance	
Uninsured	18 (4%)
MediCal	400 (84%)
MediCare	57 (12%)
Private	6 (1%)

Fig 1. HCV Genotype Distribution (N=472)

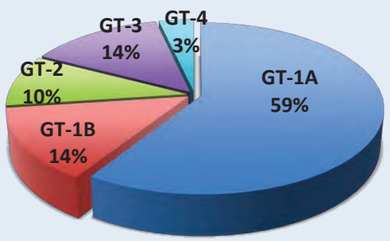


Fig. 2 HCV-Infected Patients Starting Treatment, by Provider Type, 2013-2016 (N=473)

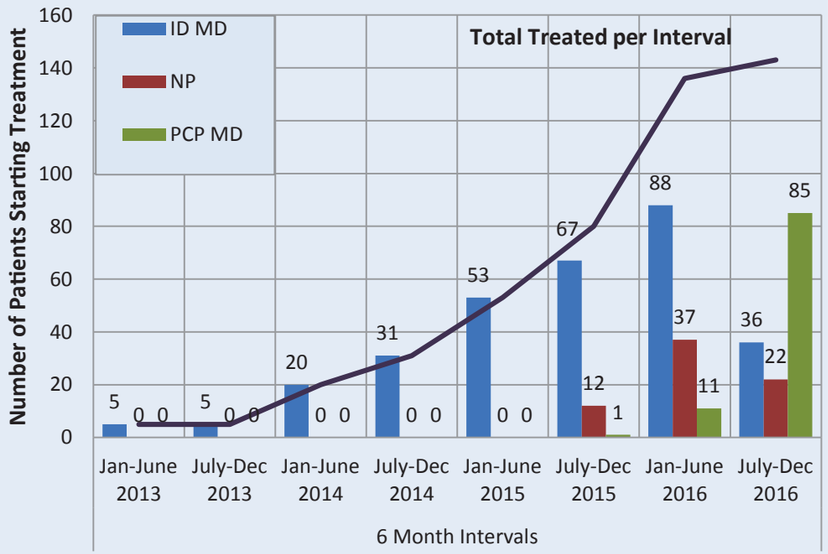
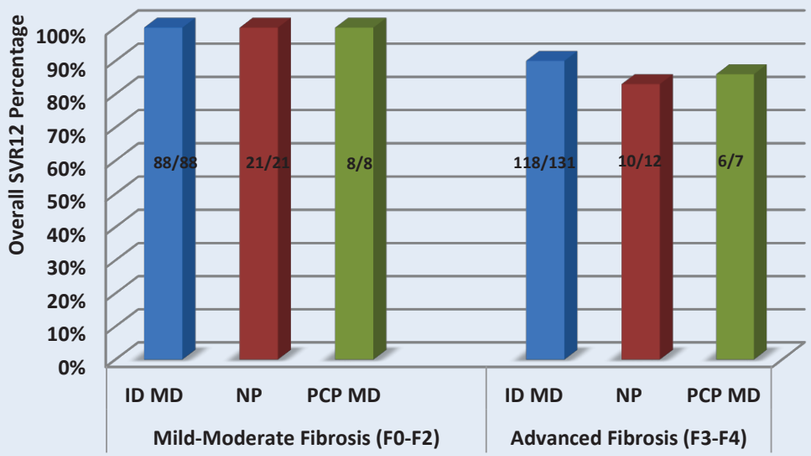


Fig 3. SVR12 Rates by Provider Type and Fibrosis Stage (Per Protocol Analysis, N=268)



Results

- **Our multidisciplinary group has initiated treatment in 473 patients between 1/1/13 and 11/20/16.**
  - **Patient demographics & clinical information are shown in Table 1 & Figure 1**
  - **33 (6.3%) were HIV/HCV co-infected**
  - **56% (N=264) had F3/F4 Fibrosis (per APRI/Fib-4/Fibrosure).**
  - **346 received Shear Wave Elastography, with median values of 8.9 kPa (IQR 7.50-12.23kPa).**
- **Of the 423 individuals who completed treatment, 342 are more than 12 weeks post therapy; 268 of whom had labs 12 weeks post-treatment.**
- **Overall SVR12 Rates:**
  - **94% per protocol (251/268)**
  - **NPs and PCP MDs Cure Rates were similar, with PCP MDs and NPs now treating the majority of patients (Figures 2 & 3)**
  - **73% per ITT; missing = failure (251/342)**
- **Of the 16 patients with virologic failure, all 16 were cirrhotic.**
  - **GT1A=7 GT1B=1 GT2B=3 GT3=3 GT4=1 GT6c-I=1**
- **One patient discontinued therapy due to a treatment-related adverse reaction (hyperkalemia, renal failure and virologic failure).**

Fig 4. ECHO Tele-health didactics and clinical case discussions



Discussion

- **Focused training of both NP and MD PCPs can extend HCV treatment access without sacrificing cure rates.**
- **One model for extending HCV treatment is a specialist-trained and led team of primary care providers, linked with navigators via a Project ECHO-like telehealth model of collaboration**
- **SVR12 rates are similar to those seen in clinical trials and 'real world' academic consortia (e.g. TRIO, TARGET), however with higher rates of missing data, in particular with patients not returning for SVR12 lab collection.**

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