Interprofessional Team-Based Approach to Patients with Chronic Hepatitis C and Psychiatric Co-morbidity

Donald Gardenier, DNP, FNP-BC, FAANP, FAAN
Catherine Amory, LCSW
Angela Woody, BA

Division of General Internal Medicine
Icahn School of Medicine at Mount Sinai
New York, NY USA
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Hepatitis C
Global Preventable Death Rates

Caused by viruses
- HIV
- HBV + HCV
- Measles
- RSV, Rota
- Flu
- Dengue
- HPV
- West Nile
- SARS
- Ebola
- Polio
- Hanta

Other causes
- Tobacco
- Malaria
- Road accidents
- Non-HIV TB
- Hospital infection
- Suicide
- vCJD

Source: WHO 2013
Estimates by Year: HCV Prevalence and Cirrhosis

Prevalent HCV: All Cases
Chronic HCV
Cirrhosis
Acute HCV

Davis. Gastroenterology. 2010
HCV Antibody Prevalence by Year of Birth

Proportion Anti-HCV-Positive, %

Year of Birth


1988–1994
1999–2002

NHANES 1988 - 2002
Hepatitis C is a Disease of Marginalized Groups

- **US population** 2 - 3%
- IDU > 10 years of use 90%
- IDU < 10 years of use 50%
- Homeless persons 35%
- Prisoners 29%
- Severely mentally ill 19%
Newly Reported Cases of Chronic HCV: New York City

Source: NYCDOHMH
U.S. HCV Epidemiology

Predictions for 2010-2019

- 193,000 HCV deaths
  - 720,700 million years of advanced liver disease
  - 1.83 million years of life lost

- $11 billion in direct medical care costs

- $21.3 and $54 billion societal costs from premature disability and mortality

CDC; Wong et al. 2010
Sustained Viral Response Is Associated with Improved Outcomes

Mount Sinai – Patient Population

• High (2 - 4x) prevalence in our population
• Poor follow up on referrals
• Poor HCV health literacy
• High comorbidity
• Complicated work up
• Competition for scarce sub-specialty resources
Mount Sinai’s Response

• Initial planning in 2001
• Prevalence study (N = 1,000) = 8.3%\(^1\)
  • Known endemic area
  • Poor follow up on referrals
  • Case finding
• Need to upgrade and change clinical services
  • NP-led model for continuity of care
  • Navigator
  • Collaborative
  • Need to enhance providers’ HCV knowledge
Mount Sinai – Initial Goals

• To implement new (at the time) goal of treating earlier in progression of disease
• Keep the patients in the primary care setting
• Help patients through the complicated work up
• Address multiple co-morbidities simultaneously
• Coordinate more closely with PCPs
• Increase providers’ awareness of changing HCV landscape
• Treat more patients
Mount Sinai – Clinic Description

• Primary care-based
• Multidisciplinary
  Nurse practitioner, physicians, clinical psychologist, social worker, dietician, navigators, outreach workers, care coordinators
• Emphasis on Continuity
• Collaborative
  Hepatology/transplant, ID, other specialties, pharmacy, community resources
Mount Sinai – Integrated Services

• Support group
• Peer program
• Cure Club
• Outreach/Linkage
• Advocacy/Professional education
• Research
• Community partners
• Education
Evolution of Chronic HCV Treatment

- 1991: Interferon (<20% cure rate)
- 1998: Interferon + Ribavirin (35% cure rate)
- 2001: Pegylated Interferon + Ribavirin (44% cure rate)
- 2011: 1st Gen DAA + Peg + Riba (70% cure rate)
- 2013: 2nd Gen DAA + Peg + Riba (>90% cure rate)
- 2014+: All oral regimens (>95% cure rate)

1Cure rate approximations based on clinical trial data
2direct acting antivirals
Commonalities Among Our Patients

- Genotype 1a (most common subtype in USA)
- Risk factor: substance use (or suspected)
- Previously treated in our program & stopped due to side effects
- Trust: Relationship building and maintenance
- Pre-treatment planning
- Managed serious side effects while on final treatment
- Borderline personality disorder (Groves), co-morbidity
- All achieved a sustained viral response 24 weeks post treatment (cure)
- Would likely not have been treatment candidates or lost to follow up in traditional medical practices
TD: Summary

- 30 year old male
- Bipolar disorder and ADHD
- Heroin use in partial remission
- Residential drug treatment program
- Groves’ “Self-Destructive Denier”
- Flexible visits, limited contact
TD: Treatment Course

- pegIFN\(^1\)/riba\(^2\)/TVR\(^3\) in 2012:
  - Severe side effects after one dose of TVR so stopped
  - Continued pegIFN/riba alone, asked for BOC\(^4\)
  - Started at TW\(^5\) 6
  - Weight loss of 30 lb by TW 9
  - Stopped treatment
- Lost to follow up (heroin relapse), then outreached, returned 5 months later
- Requested PegIFN/riba only (non standard of care) in 2013
- Self-advocated to be treated while he was in a residential drug treatment program

\(^1\) pegylated interferon; \(^2\) ribavirin; \(^3\) telaprevir; \(^4\) boceprevir; \(^5\) treatment week
BL: Summary

- 52 year old female
- PTSD, bipolar disorder, cirrhosis, trypanophobia
- Refused transfusion as a possible intervention for anemia
- Groves’ “Entitled Demander”
- Special accommodations, redirection, support
- Became active in our support group and cure club
BL: Treatment Course

- PegIFN/riba in 2001 (elsewhere), stopped for side effects
- PegIFN/riba/TVR in 2013
  - Became anemic
    - Refused to consider transfusion
    - Refused blood draws for monitoring (difficult stick)
    - Treatment stopped for safety over her objections
- Fired Donald, we agreed to have another provider manage her
- Angie and Katy continued in their roles
- PegIFN/riba/SOF\(^1\) in 2014
  - 12 wk course stopped at TW 11 for cutaneous sarcoid
  - Sarcoid symptoms resolved
- Likes Donald again

\(^1\)sofosbuvir
FC: Summary

- 56 year old female
- Depression, meningioma, seizures, peripheral vascular disease, FAS, cirrhosis, PTSD, chronic pain
- Frequent psychiatric admissions, med changes
- Case manager, previously in psychiatric day program
- Groves’ “Dependent Clinger”
- Hospitalization, Coordination w/ ICM, limit setting
- Donald’s primary care patient since 2000, fired him once but then came back
FC: Treatment Course

- PegIFN/ribo in 2005
  - Psych ED on treatment day 5: admitted for suicidality
  - Treatment stopped, patient requesting to resume
  - Offered to resume while she was admitted: Declined
- Progressed to cirrhosis while waiting for new treatment
- SMV\(^1\)/SOF (off label at the time) in 2014
  - 12 week course, seen weekly
  - Reported psychotic symptoms (hearing voices) mid treatment
  - Treatment continued while admitted
  - Katy and Angie visited while she was admitted

\(^1\)simeprevir
Discussion
Review of the Cases

• Outcome vs process
• Distilling our approaches and interventions
• What worked and what could be improved
• How to apply to future cases
• How we evaluated our interventions
• Implications for the interprofessional team
Contextualization

• No one approach to a patient
• Approaches and philosophies can be blended
• Goal-oriented: cure the hepatitis C
• Informed by the patient’s specific needs
  • Patient-centered
  • Unified approach
  • Unique skills and contributions of individual team members
• Respect for our patients and their experiences
• Avoid pathologizing language/approach
Borderline Personality Disorder

• Relationship instability
• Anger management
• Self destructive behaviors/suicidality (crisis/containment)
  • Increases their risk of hepatitis C infection
• Identity disturbance
• Antecedents:
  • Abandonment
  • Trauma
Employed principles/concepts

• Holding Environment\(^1\) – one in which a client feels safe enough to grow/heal
• Adaptation – use of conscious awareness and choice to create human and environmental integration\(^2\)
• Stigma – attribution of lesser status
• Emotional reactivity vs social cognition – heightened emotional reactivity (usually in response to stress) leading to altered awareness of the emotions and intentions of others\(^3\)

\(^1\)Winnicott 1965; \(^2\)Roy & Andrews 1999; \(^3\)Deckers 2014
Employed principles/concepts: Holding Environment

• Therapeutic “containment”
• Based on observations of a nurturing parental relationship
• Reliability and consistency = therapeutic “frame”
• Clear expectations (boundaries)
• Empathy
• Conceptualization of physical holding
Exemplar: Holding environment

BL
• Decided at one point that she no longer wanted to see me
• In a usual psychotherapeutic model, she would have not been able to change providers
• With focused goal of treating hepatitis C, we agreed to a new provider
• Eventually allowed me to assist with side effect management
• Later agreed to see me
• Was able to see that I did not give up on her despite “firing” me
Employed principles/concepts: Adaptation

- Human being as holistic adaptive system
- Constant interaction with environment
- Employ coping mechanisms
- Regulators of emotion and behaviors
- Constant change in order to achieve health
- Becomes an interactive process both for client and team, and among team members
- Goal: to foster successful adaptation
Exemplar: Adaptation

TD
- Problem: extreme reaction to routine venipuncture
  - Adaptation: stay with him; allow him to choose his phlebotomist
- Problem: Unable to sit in the waiting room
  - Adaptation: allow him to choose a spot to wait
- Problem: Extreme side effects with initial treatment
  - Adaptation: Switch to another agent, then to non standard of care
Employed principles/concepts: Stigma

- Common among people with hepatitis C, drug use disorder and mental illness
- Learned response is to withhold information
- Trust is required before patients will begin to disclose information
- The pre-treatment evaluation for hepatitis C provides an opportunity to overcome perceived or anticipated stigma
- Opportunity to focus on the goal of treating and curing the hepatitis C, not on the stigmatizing event or condition
Exemplar: Stigma

FC
• Came for a routine visit
• Complained that she was feeling “wobbly”
• We observed that she was labile emotionally
• Eventually admitted to hearing voices and feeling like she wanted to die
• Afraid to be admitted to the hospital and that it would interrupt her treatment
• We escorted FC to the ED and arranged for her treatment to be continued once she was admitted
**Employed principles/concepts:**

**Emotional reactivity vs social cognition**

**Emotional reactivity:**
- Heightened sense of arousal by others’ emotions
- More susceptible to social cues
- Less ability to regulate psychological arousal

**Social cognition:**
- Ability to understand self and others as having feelings
- Essential to social adaptation
- Understanding others’ intentions
- Interpreting facial expressions
Exemplar: Emotional reactivity vs social cognition

TD

• Interest in tattoos
• Concerned that applying for disability would indicate failure
• Suddenly had a girlfriend, then returned with severe weight loss
• Needed me to speak to his father about his treatment because he needed copayment money and father wouldn’t give it to him because he thought he was using drugs (he had been)
• Lost contact but responded later when I reached out
• Dog walking: eventually accommodated his request to define his own treatment regimen and follow up schedule
Lessons Learned

• Important to patients as a success in their lives
• Able to generalize the concepts employed in treating their hepatitis C
• Good to take the focus off their mental illness
• Improved medications and fewer side effects are helpful
• Patients still need support to
  • Access care
  • Remain in care
  • Adhere to treatment
  • Maintain sobriety
  • Manage chaos in their lives
• Need multiple problems addressed simultaneously
Resources

- Treatment guidelines:
  - www.aasld.org/www.hcvguidelines.org
  - www.easl.eu
- Psychosocial readiness:
  - www.prepc.org
- Medication interactions:
  - www.hep-druginteractions.org
- Screening:
  - www.cdc.gov
- Special Populations:
  - www.hcvcme.com