

COVID-19流行期間台灣偏遠地區C型肝炎病毒
篩檢和消除的協同轉診模式

Collaborative referral model for hepatitis C screening and treatment in a remote mountainous region of Taiwan during the COVID-19 pandemic

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Background and aims

- ✓Community-based screening and outreach clinics are used for hepatitis C virus (HCV) treatment in remote areas of Taiwan, but services decreased during the COVID-19 pandemic.
- ✓This study aimed to develop a collaborative referral model between a primary clinic and a tertiary referral center to increase HCV screening and treatment uptake in a mountainous region of southern Taiwan.

Methods

- ✓Liouguei District is located in the mountainous region of southern Taiwan. HCV screening is performed at the Liouguei District Public Health Center (LDPHC).
- ✓Once-in-a-lifetime hepatitis B and C screening services used in the collaborative model were established by the Taiwan National Health Insurance .
- ✓Several strategies were adopted to overcome barriers in HCV care cascades (Table 1).
- ✓HCV-infected patients received scheduled referrals and took a shuttle bus to E-Da hospital for HCV RNA testing and abdominal ultrasonography on their first visits. Direct-acting antiviral agents (DAAs) were prescribed for HCV-viremic patients on their second visits (Figure 1).

Table 1 Strategies to overcome barriers in HCV care cascades

1. Integration of a team to strengthen collaboration between LDPHC and E-Da hospital.
2. Provision of HCV screening as part of integrated services at LDPHC
3. A shuttle bus and scheduled referrals to increase referral acceptance.
4. A simplified process to reduce outpatient waiting time.
5. Routine referral model.

Figure 1 Referral model between LDPHC and E-Da hospital.

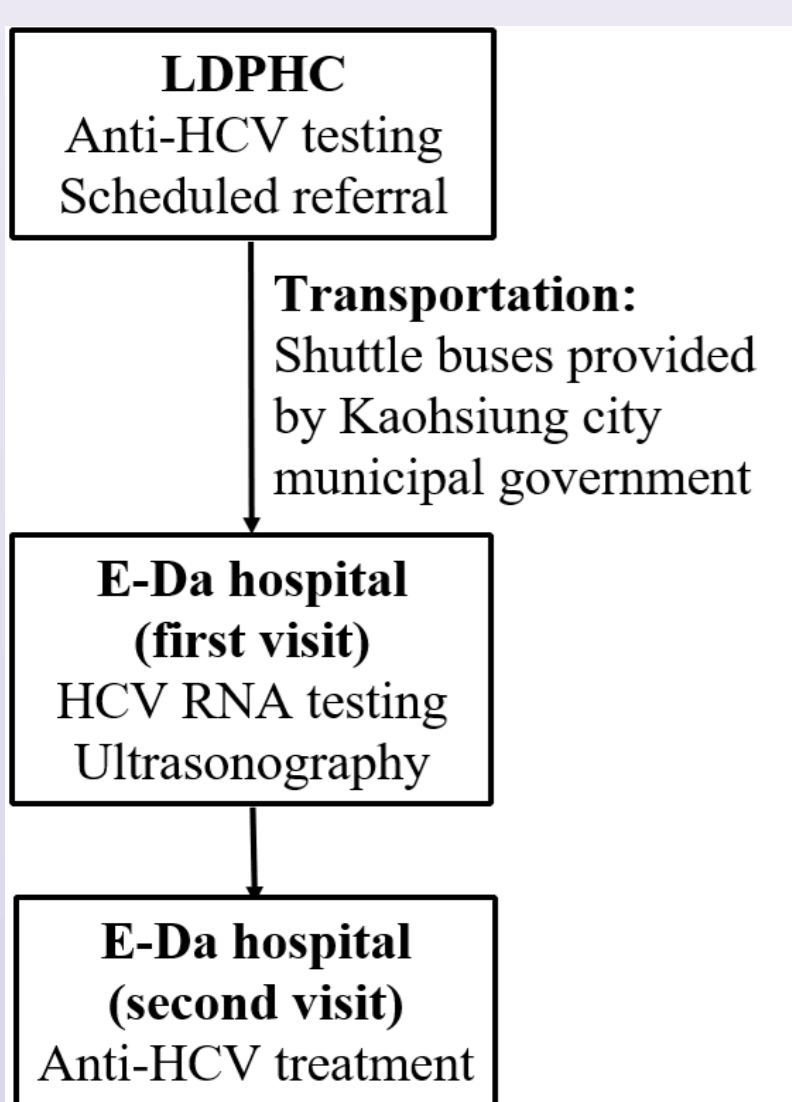


Table 2 Treatment outcomes of 35 patients receiving DAAs

	n/N (%)
Complete treatment	33/35 (94.3)
EOTVR	33/35 (94.3)
SVR12 (ITT)	32/35 (91.4)
SVR12 (PP)	32/32 (100)
Explanation for non-SVR12	n=3
Virological failure	0
Non-virological failure	
Death during treatment	1
Lost to follow-up	2

Results

- ✓From October 2020 to September 2022, of 3835 residents eligible for HCV screening, 1879 (49%) received anti-HCV testing at LDPHC.
- ✓The overall screening coverage rate of 6393 residents in Liouguei District increased from 40% before referral to 69.4% after referral.
- ✓Eighty-two residents were HCV-infected, with an anti-HCV seroprevalence of 4.4%.
- ✓Among 79 HCV-infected patients needing referrals, 70 (88.6%) patients were successfully referred, including 38 patients (54.3%) with detectable HCV RNA and 32 patients (45.7%) without (Figure 2).
- ✓Among these, 35 of the 38 HCV-viremic patients (92.1%) received DAA therapy and 32 (91.4%) achieved sustained virological response (SVR) (Table 2).

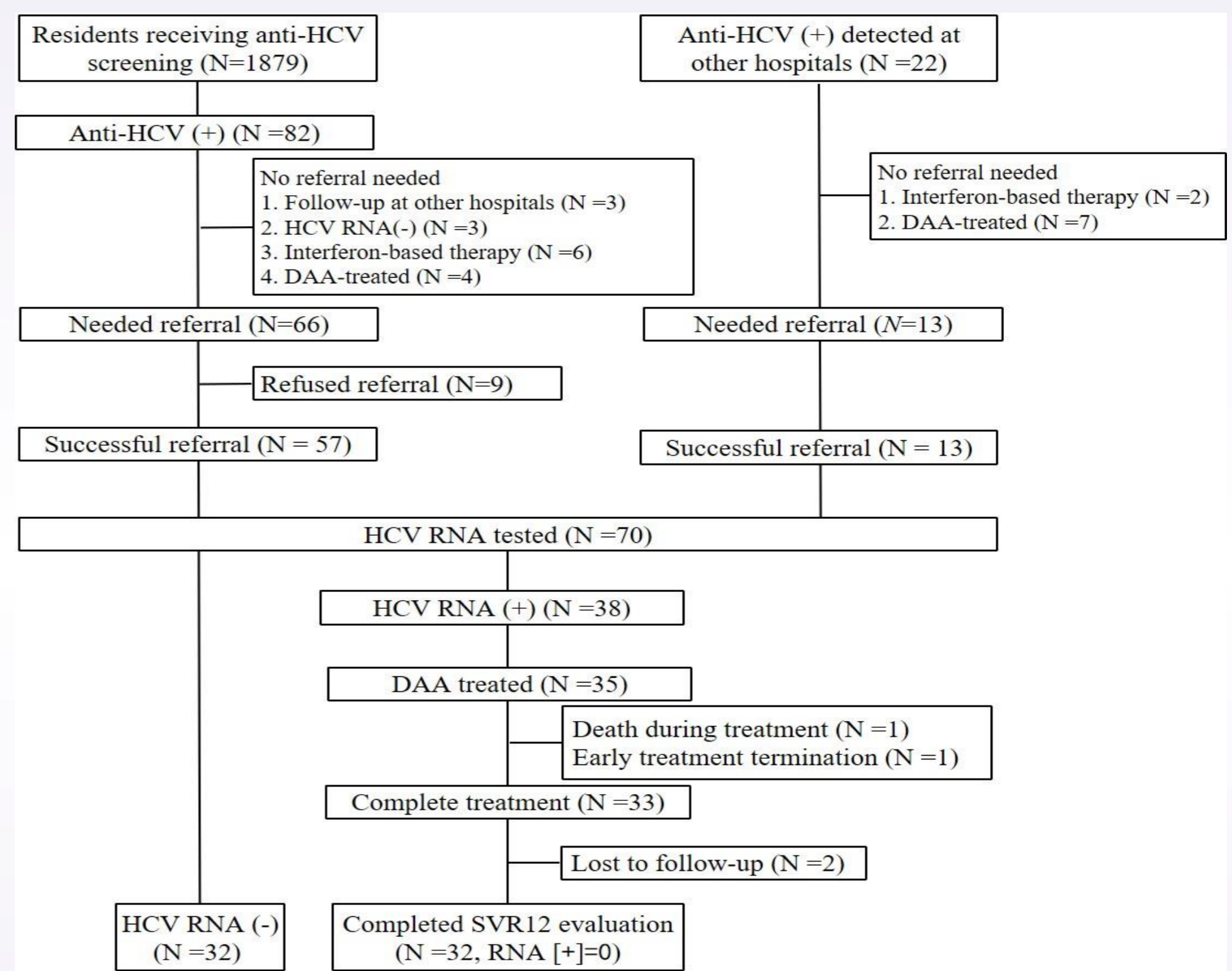


Figure 2 Flow chart of participants in the referral model.

Conclusions

- ✓ The collaborative referral model demonstrates a good model of HCV screening, linkage to care and treatment in a Taiwan mountainous region, even during the COVID-19 pandemic.
- ✓ Sustained referral is possible using this routine referral model.

應用於臨床照護

1. 經由此常規轉診模式，目前六龜衛生所仍持續進行C肝篩檢與轉診，且病人在義大治療後即轉回衛生所追蹤。
2. 除C肝外，經由此便利模式，衛生所也轉診其他醫療需求的患者至義大，居民不再視去醫學中心為畏途，避免小病拖成大病。例如，這段期間已轉診20位糞便潛血陽性患者至義大接受 one-visit colonoscopy (當天門診即做大腸鏡)，6位接受息肉切除，1位發現有大腸癌。
3. 此模式讓雙向轉診及分級醫療更順暢，讓病人方便也符合國家政策，目前也已將此模式推廣至其他衛生所。