IMPROVING THE HIV TESTING CASCADE: ADEQUATE IDENTIFICATION OF PATIENTS WITH HIV INDICATOR CONDITIONS IN HOSPITALS BY ELECTRONIC REGISTRATION SYSTEMS

On behalf of the #aware.hiv project

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BACKGROUND

• 2014: UNAIDS set 90-90-90 target
• Current figure in the Netherlands 92-93-96
• Majority of patients with an HIV infection visit physicians for HIV-related medical reasons in the years prior to their HIV diagnosis
• #aware.hiv project aims to improve HIV indicator condition (IC) driven testing
• Key challenge: adequate identification of patients with possible ICs in hospitals which is the first step in triggering the HIV testing cascade

METHODS

• A single center prospective implementation project at Erasmus University Medical Center, Rotterdam
• Data were collected on all newly registered diagnoses in patients ≥ 18 years who entered care between January 1st 2020 and June 1st 2020
• An extensive list of ICD-10/DBC codes (which are mandatory to be registered) was constructed
• A two-step approach was used to identify possible HIV ICs by automatic ICD-10 screening and cross-comparing by standardized health insurance codes (DBC)
• All flagged diagnoses were systematically reviewed

RESULTS

• All newly registered diagnoses were automatically screened and flagged when the ICD-10 or DBC code was possibly related to an HIV IC (see figure 1)
• After manually reviewing all flagged diagnoses 402 (1.1%) were identified as HIV IC of which 166 (41%) were adequately tested for HIV, tested positive

CONCLUSIONS

• Existing ICT infrastructures using mandatory ICD-10 coding in electronic patient files can help to identify patients with HIV ICs in low-prevalence setting
• Our data confirms the gap between HIV IC identification and HIV testing
• Future studies aim at improving this gap

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Table 1 shows the gap between identification of HIV ICs and HIV testing rate
• Automatic screening for HIV ICs using ICD-10 coding had a 96% sensitivity, a 93% specificity, a 14% PPV and a >99% NPV

Top 10 HIV indicator conditions N (%) HIV test, N (%)
Hepatitis A + B + C* 45 (11) 36 (80)
Lymphoma* 42 (10) 31 (74)
Cervical cancer 39 (10) 0
Cervical dysplasia 33 (8) 2 (6)
Sexually transmitted infections* 26 (6) 8 (31)
Peripheral neuropathy 22 (5) 1 (5)
Unexplained chronic renal impairment 18 (4) 11 (61)
Lymphocytic meningitis 16 (4) 11 (67)
Seborrheic dermatitis/exanthema 14 (3) 1 (7)
Unexplained chronic diarrhea 14 (3) 1 (7)

* HIV testing recommended in national guideline

Table 1

Figure 1

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