

Reinventing blood safety

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Poster Presentation

Routine Screening of Blood Units with Nat Test. Experience of the Supraregional Transfusion Service

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Background:

At our Transfusion Department, NAT has been performed routinely for HIV and HCV RNA detection on all blood units since 11.4.2001, in compliance with the resolution of Piemonte Region no. 28-3449. The technology, implemented is the Procleix HIV-1/HCV Assay. The NAT laboratory collects the samples coming from 3 AVIS Collection Units, 3 NHS hospitals, and several collection centers within the territory of Piemonte Region.

Methods:

We will present the operative protocol concerning the pre-analytical phase (modalities of collection, transportation, storage, and identification of samples), the analytical phase, and the post-analytical phase, going into details of integration, management, transmission, and filing of results. The units are validated by the end of the day, in compliance with the criteria for test validation and the appropriate algorithm. The appointed staff consists of three laboratory technicians and two fellow biologists. Working time is about 12 hours a day for 5 days and 8 hours per day on Saturday and Sunday. The workload calculated over 4 routine months is 86% of saturation in comparison with given results, and 91% in comparison with overall activities.

Results:

On 10th March, the incidence rates were: 0.23% for IR samples, 0.028% for True Positives (0.026% for HCV and 0.0024% for HIV), 0.29% for invalid samples and 1.5% for invalid runs, on a total of about 45,000 tested donations. During the congress, we will report some suggestions and proposals regarding NAT procedure and we will discuss the results from a questionnaire sent to 20 Italian blood centers using the Procleix technology. In addition, we will compare the Italian results with the international ones.