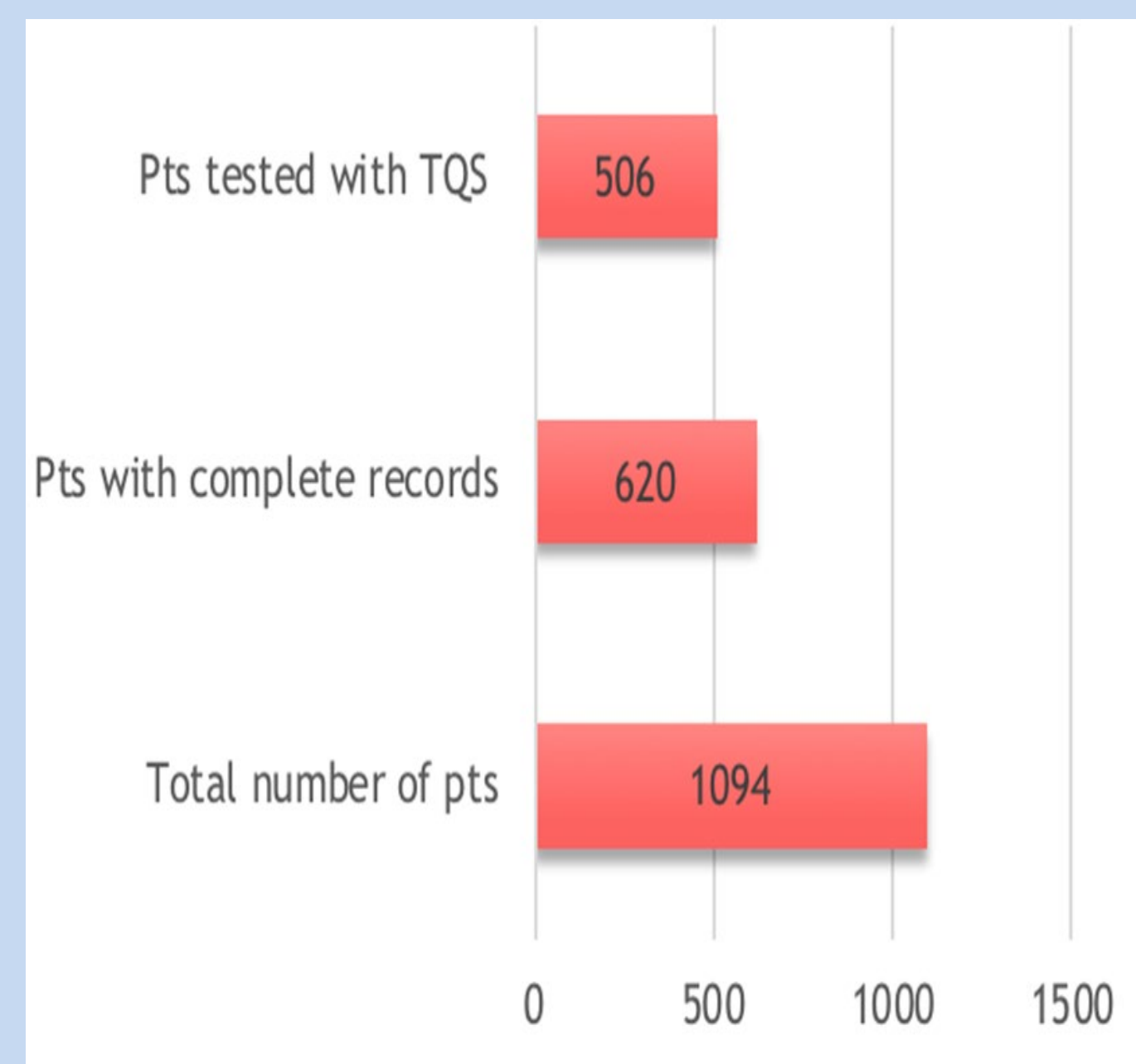
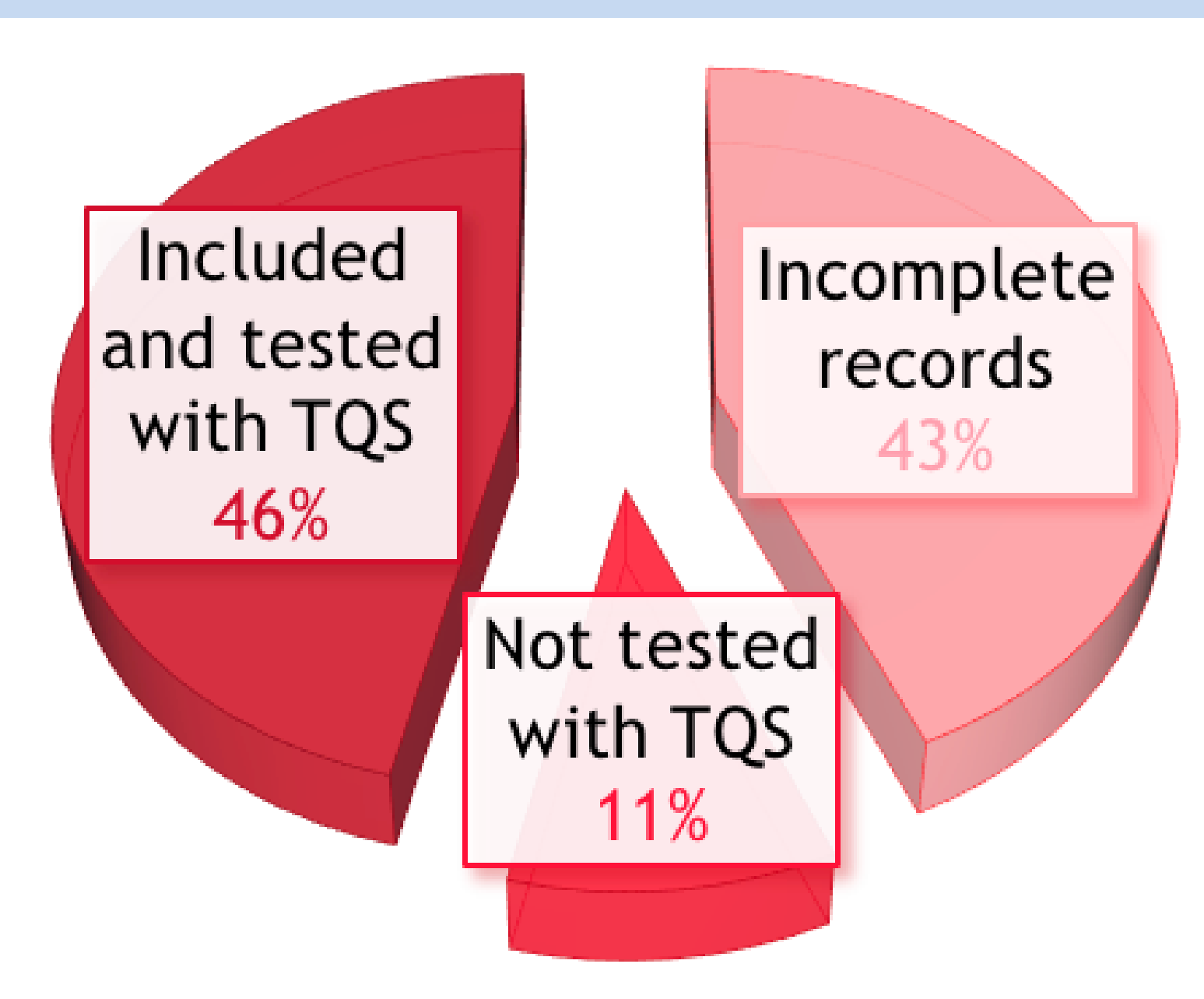
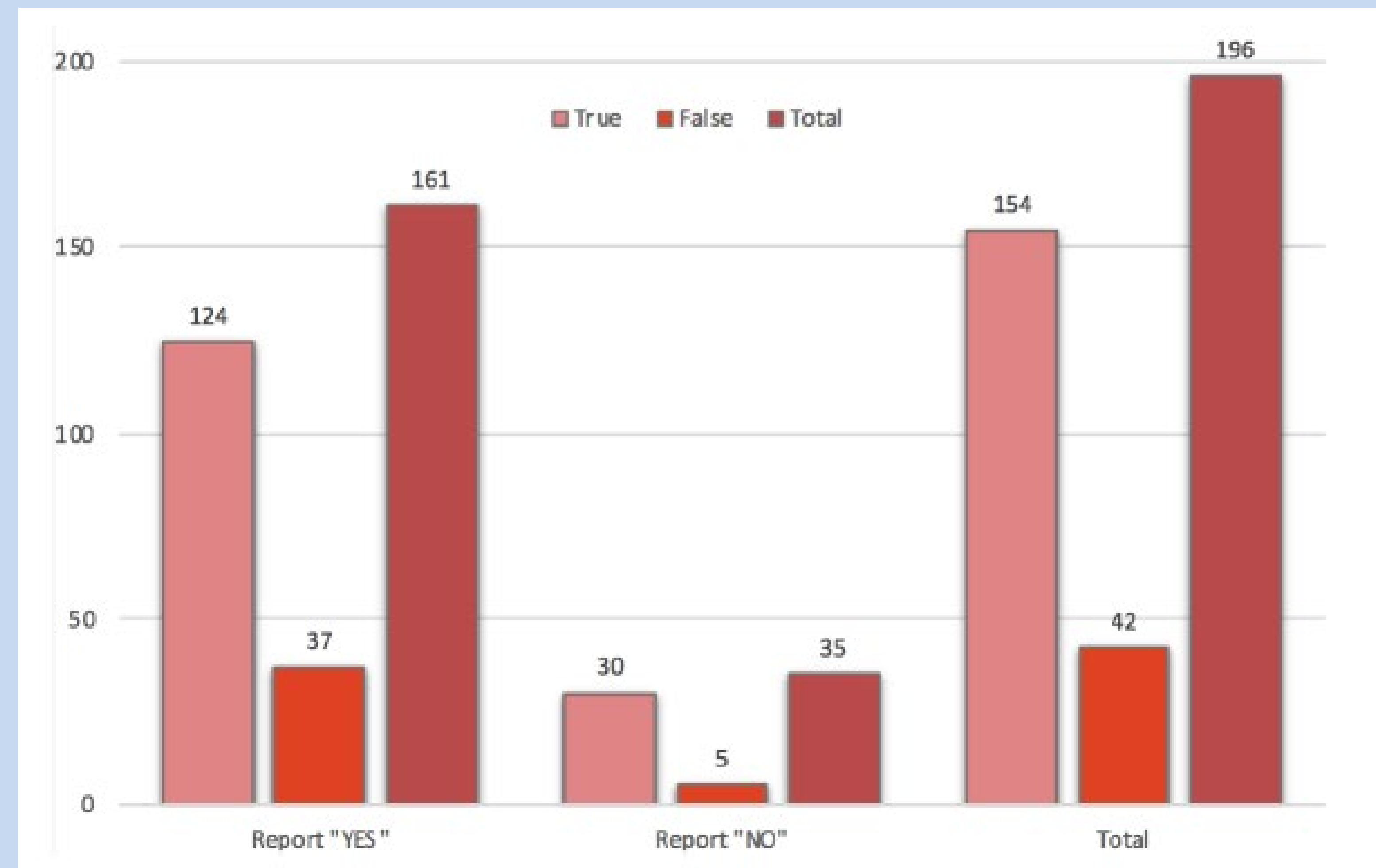


Background:

Tetanus infection remains one of the most important possible complications of wounds, and the majority of guidelines for the treatment of this condition rely mainly on the anamnestic data directly collected from the patient. Tetanus is one of the most important persisting vaccine-preventable infections, which in Italy is still more widespread than in other countries. It is therefore very important to verify the congruence between anamnesis and laboratory evidence, as well as to define whether there are classes of patients who could be more prone to being not vaccinated.



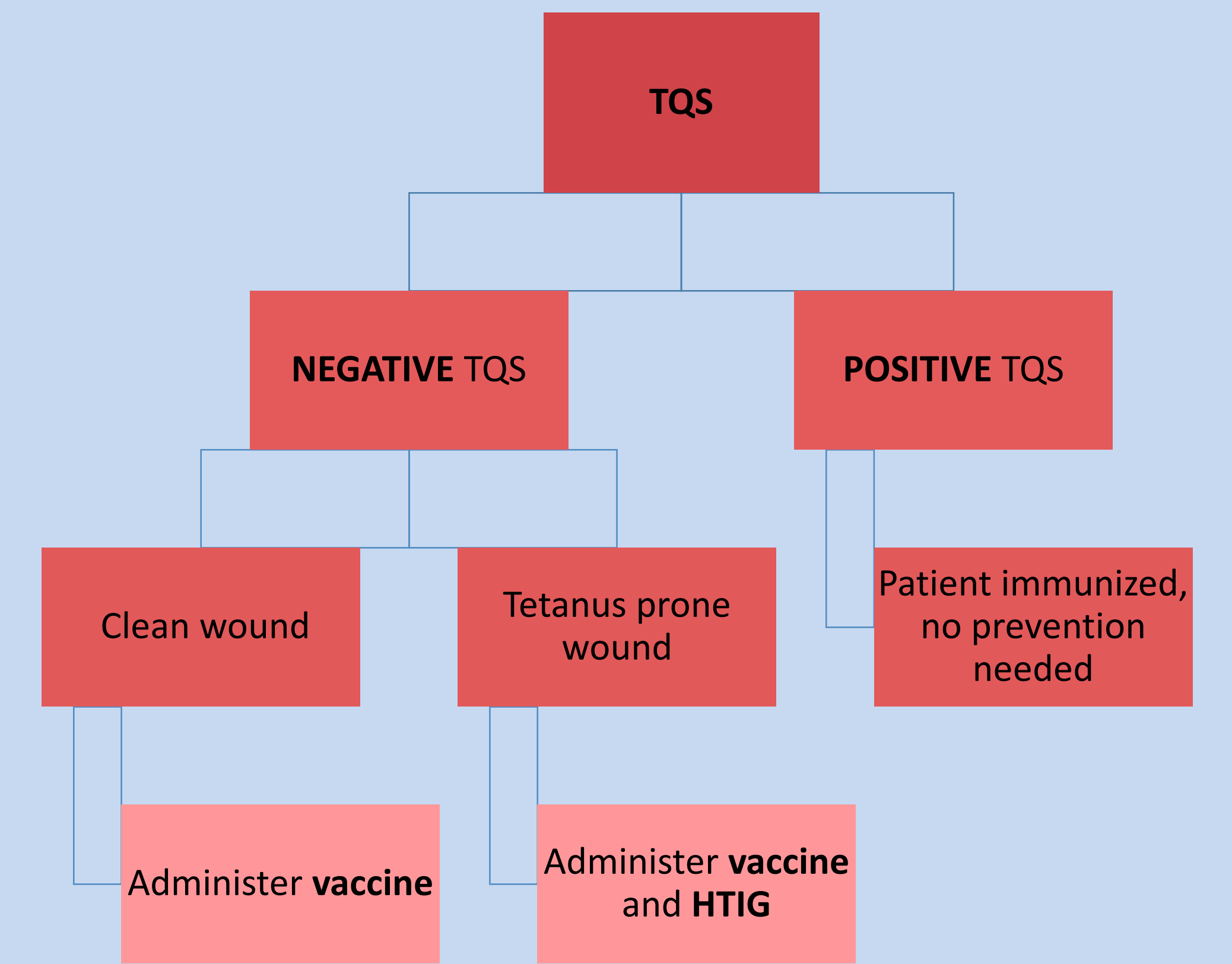
Of these 1094 patients, 474 (43.33%) were excluded, due to the incompleteness of the digital records, therefore only 620 (56.67%) patients were included in the study. Out of 620 patients, 114 were not tested with the Tetanus Quick Stick. therefore, for some analyses, only the sample constituted by the remaining 506 patients (81.61%) was used. The patients were asked whether they were immunized against tetanus infection, not immunized or did not know. The result of the TQS was then compared with the referred anamnestic data.



Results & discussion :

Out of the 620 patients taken into consideration, data shows a prevalence of male patients, aged more than 60 years. Data also shows some categories of patients at higher risk, for example the elderly. Among patients aged more than 60 years old, a statistically significant difference between female and male patients was recorded. However, surprisingly, even young patients were found to be lacking protective immunity.

The prevalence of patients who did not have any information on their immune status was 68.38%. Out of 506 patients who underwent testing with the TQS, 196 patients concomitantly reported information on their immune status. This showed that, out of 161 patients who believed to be protected, 37 (22.99%) were not, while of the 35 patients believing not to be protected, 5 (14.29%) were actually already immunized. Therefore out of the total number of patients declaring their immune status, 21.43% are wrong.



Conclusion & perspectives :

The analyzed data, display which the issue of tetanus vaccination affects an heterogeneous population, with categories which can be defined to be at higher risk. Even young patients however are lacking protective immunity and need to undergo appropriate testing. Moreover, a large percentage of patients, is not aware of its vaccinal status, and are not aware of the importance of receiving boosters every 10 years. This suggests the need of an intervention in terms of education of the patients, as well as the need for a specific standardized protocol for the management of wounds and for prevention of tetanus infection, simpler and more intuitive than the ones previously described in literature, and which allows the physician to proceed with the administration of prophylaxis without having to rely on information reported by the patients. An example of guidelines that could be considered for this purpose, is the one proposed by J.C. Cavenaile and utilized at the Emergency Department of the CHU Brugmann in Bruxelles, which presupposes the systematic use of TQS in all patients presenting with wounds.

Patients & Methods :

Objectives: To observe and record the characteristics of patients presenting with tetanus prone wounds to the Emergency Department; to test whether patients coming to the ER are aware of their vaccinal status.

Method: The research has been conducted through the analysis of the data collected, in part retrospectively, from 1094 patients who referred to the Emergency Department of the Fondazione IRCCS Policlinico San Matteo between April 2016 and November 2017, with wounds potentially at risk for tetanus infection.