

Cost of pathogen reduction for platelets: reply to Cicchetti *et al.* Blood Transfus 2018; 16: 483-9

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Cicchetti *et al.*¹ describe pathogen reduction technologies (PRT) as preventative measures. PRT is the logical extension of the Precautionary Principle which has been underpinning blood safety since the acknowledged errors which led to the viral epidemics of the 1970s-1990s. Since its *de facto* adoption, the Principle has had to deal with an uneasy relationship with the growing incursion of health economics in the field of blood transfusion. The increasing prevalence of the type of analyses described by Cicchetti *et al.* has had little influence on the continuous series of public inquiries (such as that currently underway in the United Kingdom²) and has resulted in substantial criticism of the failure of blood agencies to implement safety measures when these became available.

Irrespective of its technical features and a paucity of detail, the analysis of Cicchetti *et al.* offers an opportunity to widen the blood supply landscape both in Italy and globally, through considering additional features, such as the minimisation of risk from emerging and untested pathogens, which are made possible through the use of PRT. This is what has happened with plasma derivatives, which did not transmit infections such as West Nile Virus, even when these were clearly prevalent in the mainstream blood supply, because of the steps taken to reduce pathogens during manufacture. This was recognised in the recent outbreak of chikungunya virus infection in the Latium region of Italy, where platelet and plasma transfusions continued to be used, provided they were subject to PRT procedures^{3,4}. In addition, regulatory authorities have proposed the introduction of PRT to lessen the risk of bacterial transmissions that are still transmissible by platelet concentrates⁵.

Clearly, PRT for blood components are not yet as effective as they are when applied to plasma products. The current restriction of their use to plasma and platelets also limits their usefulness, although their application to red cells is envisaged in the near future. However, we should keep in mind the statement from the USA's inquiry into the HIV tragedy: "Where uncertainties [...] preclude completely eliminating potential risks [...] the

blood industry [should] implement partial solutions that have little risk of causing harm."⁶ In this scenario, Italian decision makers may wish to reflect on the desirability of any further delay in the implementation of PRT as a standard of care.

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AF provides services to the providers of PRT technologies.

References

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