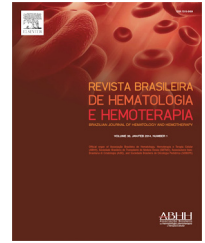




## Revista Brasileira de Hematologia e Hemoterapia Brazilian Journal of Hematology and Hemotherapy

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### Editorial

## Is there justification for universal leukoreduction?



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The Associação Brasileira de Hematologia, Hemoterapia e Terapia Celular (ABHH), the institution that represents the Associação Médica Brasileira (AMB) in respect to hematology, transfusion therapy and cell therapy in Brazil hereby states:

Prospective randomized studies have not demonstrated any positive clinical impact with the universal use of blood components in which the initial number of leukocytes has been reduced (universal leukoreduction). For this reason, universal leukoreduction remains a technically controversial topic. The current consensus is that leukoreduction has defined indications in the prevention of three blood transfusion complications only: (i) non-hemolytic febrile reactions when the patient has had this reaction previously; (ii) platelet refractoriness caused by alloimmunization against leukocyte antigens and (iii) the transmission of cytomegalovirus

(CMV) in susceptible patients (according to Brazilian Legislation). In these three situations, as a clinically effective precaution, patients should receive leukoreduced blood components. Other benefits proposed for leukoreduction such as decreased transmission of prions (which is the reason some European countries implemented universal leukoreduction a few years ago), reducing the occurrence of transfusion-related immunomodulation (TRIM), as an effort to stop the progression of cancer and reduce transfusion-related bacterial infection rates remain controversial with contradictory results of studies.

Thus, the interpretation of current evidence shows no benefits of leukoreduction besides the three above-mentioned indications.

Hence, universal leukoreduction is not technically justified and its use is not advocated by the ABHH.

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<http://dx.doi.org/10.1016/j.bjhh.2014.06.004>

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