



e-Network Forum

CALIFORNIA BLOOD BANK SOCIETY

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Are concerns about recent aspirin ingestion by whole blood donors justified?

A blood banker wants to know if any colleagues are worried about using "random" platelets from donors who have recently (within 36 hours) taken aspirin, **since such a product would be used as part of a pool** of 4 to 8 platelet concentrates, according to the patient's required dose. The inquiring blood banker continues by asking that if colleagues are not worried, is this because you are convinced that the function of aspirin-affected platelets is restored by contact with 'normal' platelets? If not, what is the justification? Is any colleague worried about transfusing an "aspirinized" platelet concentrate **to a neonate**?

In reply to the above, the following responses were received.

1. **A Texas blood banker** reports that when she donates whole blood, she is ALWAYS asked if she has taken aspirin in the last week. When inquiring why this question is asked, she was told that whole blood donations would not be processed into 'random' platelets, if the donor had recently taken aspirin. She is of the opinion that most centers ask a similar question and follow a similar protocol, limiting the manufacturing of platelet concentrates if the donor recently took aspirin. If her belief is true and blood collection centers limit the production of platelet concentrates to donations by individuals who have NOT taken aspirin recently, then she wonders why the inquiring blood banker is concerned about receiving aspirinized platelet concentrates from their regional supplier.
2. **A transfusion medicine physician in Spain** reports that at his center their standard pre-donation questionnaire asks if the donor has taken or is taking any medication. Formerly, in the case where donors took any aspirin-containing medication, they drew the blood into a collection system from which they produced RBC and Plasma, but NOT platelets. Since implementing universal leukoreduction, they have modified their protocol for component preparation to prepare buffy-coat derived pools of platelets - 6 units for adults and 3 units for young people. For newborns they produce apheresis platelets. The responding physician comments on the mechanism by which a pool of random platelets might function, when one or more of the individual platelet concentrates is affected by aspirin exposure. He reports that aspirin is an irreversible inhibitor of platelet cyclo-oxygenase, so all the platelets circulating at the moment of taking the aspirin would be functionally impaired until they are cleared from the circulation at the end of their life span. However, every day 1/7th part of the total body platelet pool is produced. The new platelets have not been exposed to the drug and are able to act normally. The hypothesis is that once a critical mass of functional platelets is present, they can activate and recruit further platelets by pathways not inhibited by aspirin, e.g., by thrombin generated on their surface.

ADDENDA Oct. 30, 2002

3. **A physician in the UK National Blood Service** reports that platelets are not prepared from whole blood donations if the donor has taken aspirin in the past 5 days; other components are used. Plateletpheresis donors are not bled if aspirin has been ingested in the previous 5 days.

ADDENDA Oct. 31, 2002

4. **A blood banker in Virginia** suggested that it might be worth noting that the AABB Standards for BB/TS 21st edition 5.4.1A #8 states that "Ingestion of aspirin-containing medications or those that irreversibly inhibit platelet function within 36 hours of donation precludes use of donor as sole source of platelets". In addition, a [1988 memorandum from FDA/CBER](#) also speaks to the 36 hours issue. Therefore, it would seem that if a donor center chooses to make whole blood derived platelets from people who have ingested "aspirin-containing medications or those that irreversibly inhibit platelet function within 36 hours of donation" then a process should be in place preclude using those products as the sole source of platelets for a patient.

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Addenda: Oct. 30 & 31, 2002