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Effect of phospholipid coating on the migration of plasticizers from PVC tubes

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# 1 Effect of phospholipid coating on the migration 2 of plasticizers from PVC tubes

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## 16 **Abstract**

17 Plasticizers in polyvinyl chloride (PVC) are not covalently bound to the polymer and can thus  
18 migrate into the contact medium. The presented study investigated the potential effects of  
19 phospholipid-lining as anti-coagulation coating(s) (ACC) on the migration rate of plasticizers  
20 from PVC tubing into blood.

21 For the in-vitro study, five different groups of tubing sets in six replicates were perfused with  
22 sheep blood (Group A: PVC plasticized with di-(2-ethylhexyl) phthalate (DEHP) without ACC,  
23 Group B: DEHP-plasticized PVC with ACC, Group C: PVC plasticized with tri-(2-ethylhexyl)  
24 trimellitate (TOTM) without ACC, Group D: TOTM-plasticized PVC with ACC, Group E  
25 (control group): polyolefin material with ACC but without plasticizers). Both the levels of the  
26 unchanged plasticizers in blood and the concentration levels of their primary degradation

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