

## Dr. Aditi Khandelwal, New Updates in Transfusion

Topic	Summary	References
Pooled pathogen reduced buffy coat platelets (PPPT)	<p>Pathogen reduced platelets (PPPT) available in Ontario</p> <p>PPPT effectively reduces transfusion transmitted infections – viruses, bacteria, T cells, protozoa parasites</p> <p>Psoralen treatment (INTERCEPT technology) is being used</p> <p>Instead of 4 for pooled platelets, 7 buffy coats are being pooled for PPPT then treated</p> <p>Shelf-life is 5 days</p> <p>Less donor plasma is present in each bag</p> <p>No viable lymphocytes, hence no irradiation required</p> <p>Considered CMV negative</p> <p>Fewer allergic and febrile reactions</p> <p>Main concern – non-immune platelet refractoriness in chronically transfused populations</p>	<p>Blais-Normandin I, Tordon B, Anani W. Pathogen-reduced buffy coat platelets [Internet]. Ottawa: Canadian Blood Services; 2022 [cited 2022 05 10]. Available from: <a href="https://profedu.blood.ca/en/transfusion/publications/pathogen-reduced-buffy-coat-platelets">https://profedu.blood.ca/en/transfusion/publications/pathogen-reduced-buffy-coat-platelets</a></p>
Tranexamic Acid (TXA) Updates – Is there an increase in CV/VTE risk?	<p>NEJM 2022</p> <p>P: N=9535 undergoing non-cardiac surgery</p> <p>I: TXA 1g bolus</p> <p>C: placebo</p> <p>O: TXA is superior to placebo in reducing bleeding (HR 0.76). <i>Non-inferiority for CV/VTE safety outcomes was not established (TXA group 14.2% vs. Placebo 13.9%)</i></p> <p>JAMA Surg 2021</p> <p>Syst review and meta-analysis with N=125550 surgical pts</p> <p>IV TXA vs. Placebo/no treatment</p> <p>No increase in TE events</p>	<p>Devereaux PJ et al. Tranexamic acid in patients undergoing noncardiac surgery. NEJM 2022 Apr 2. doi: 10.1056/NEJMoa2201171. Online ahead of print.</p> <p>Taeber I et al. Association of intravenous tranxamic acid with thromboembolic events and mortality. JAMA Surg. 2021;156(6)e210884</p>
Wrong blood in tube errors (WBIT)	<p>ABO mistransfusions can occur due to WBIT</p> <p>WBIT is detected ~ 1 in 10,000 samples</p> <p>WBIT are either:</p> <ul style="list-style-type: none"> <li>- Intended patient + wrong label (~50%)</li> <li>- Wrong patient + intended label (~50%)</li> </ul> <p>WBIT occur more frequently in EDs &gt; inpatient wards &gt; outpatient wards</p> <p>Most commonly, WBIT is identified during pre-transfusion testing (58%) and check sample (20%)</p> <p>Most common source of error is availability of another patient's labels or tubes when phlebotomy is being performed</p> <p>Electronic positive patient identification has not eliminated WBIT</p> <p>WBIT is preventable if all protocols/policies are followed</p>	<p>Dunbar NM et al. Factors associated with wrong blood in tube errors: An international case series – The BEST collaborative study. Transfusion 2022;62:44-50.</p> <p>Dunbar NM et al. Emergency departments are higher risk locations for wrong blood in tube errors. Transfusion 2021;61:2601-2610.</p>