

The Introduction of a Massive Transfusion Pack for MedSTAR: Has it Made a Difference?

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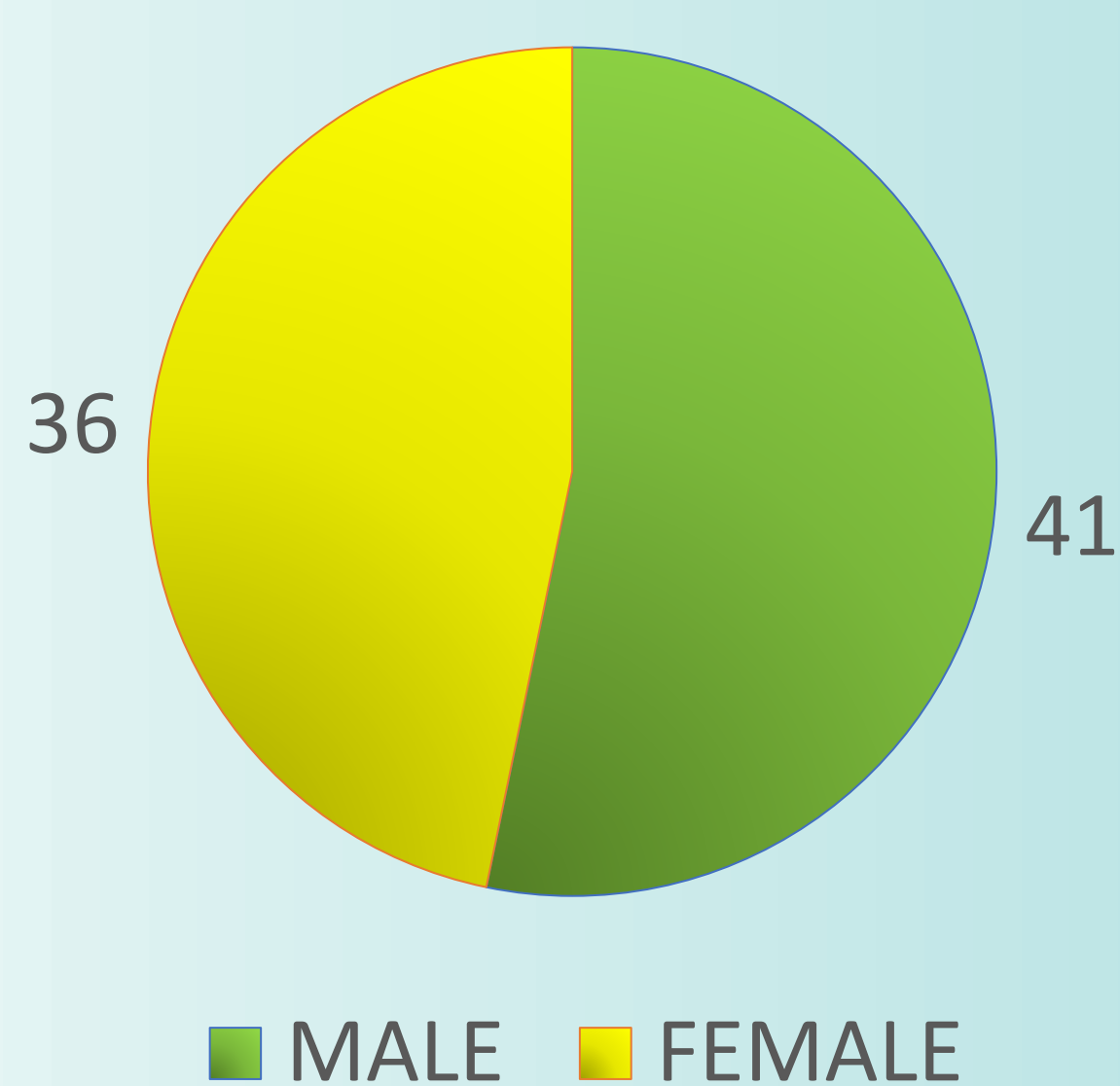


Blood product carriage and use in South Australia has been an established practice since 2003. The MedSTAR operations base at Adelaide Airport holds a range of blood products including Red Cells, Prothrombinex and Fibrinogen Concentrate, allowing teams to take targeted and extended product to the patients, rather than taking the patient to the product.

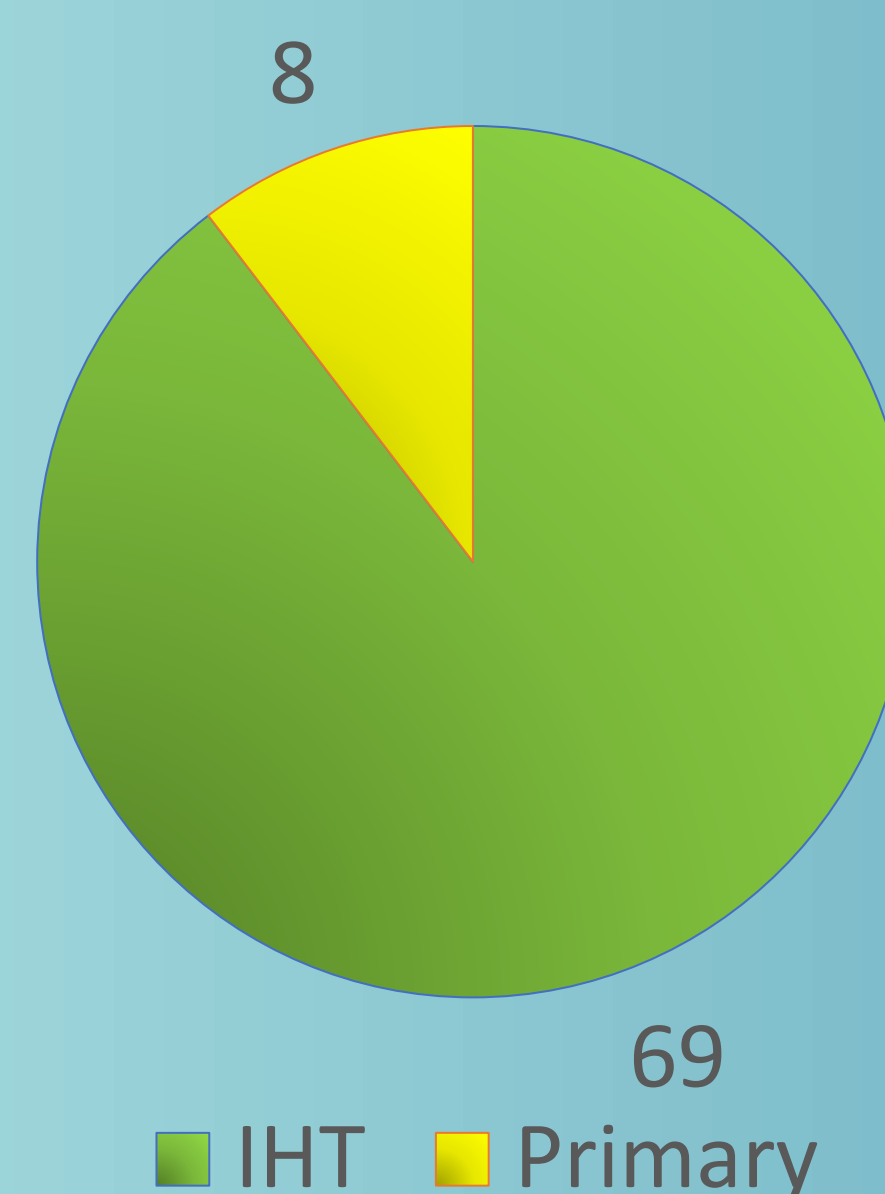
In 2019, a Massive Transfusion Pack (MTP) was introduced as an additional resource to aid in the resuscitation and stabilization of patients who are experiencing a critical bleed event. The MTP contains 4 red cell units, 2 fresh frozen plasma units and 1 unit of platelets, which is carried in a lightweight and cold-chain validated corrugated plastic shipper.

The MTP is activated by the MedSTAR Medical Retrieval Consultant and Nurse Retrieval Coordinator, and is collected from the Royal Adelaide Hospital (RAH). The MTP can be collected via helicopter on the RAH helipad or via road at a predetermined location near at the RAH Emergency Department.

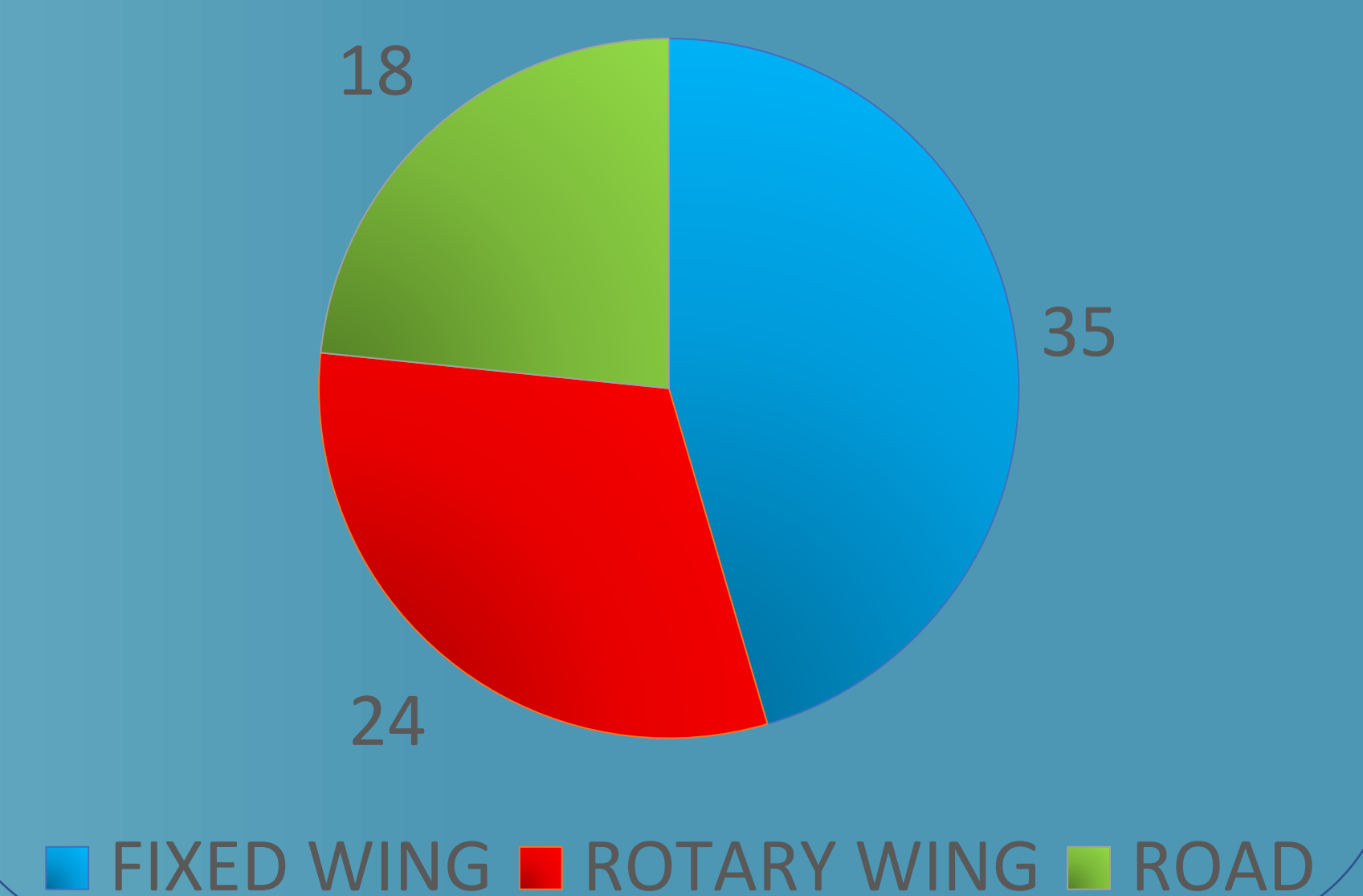
MTP Feb 19-July 23: Gender



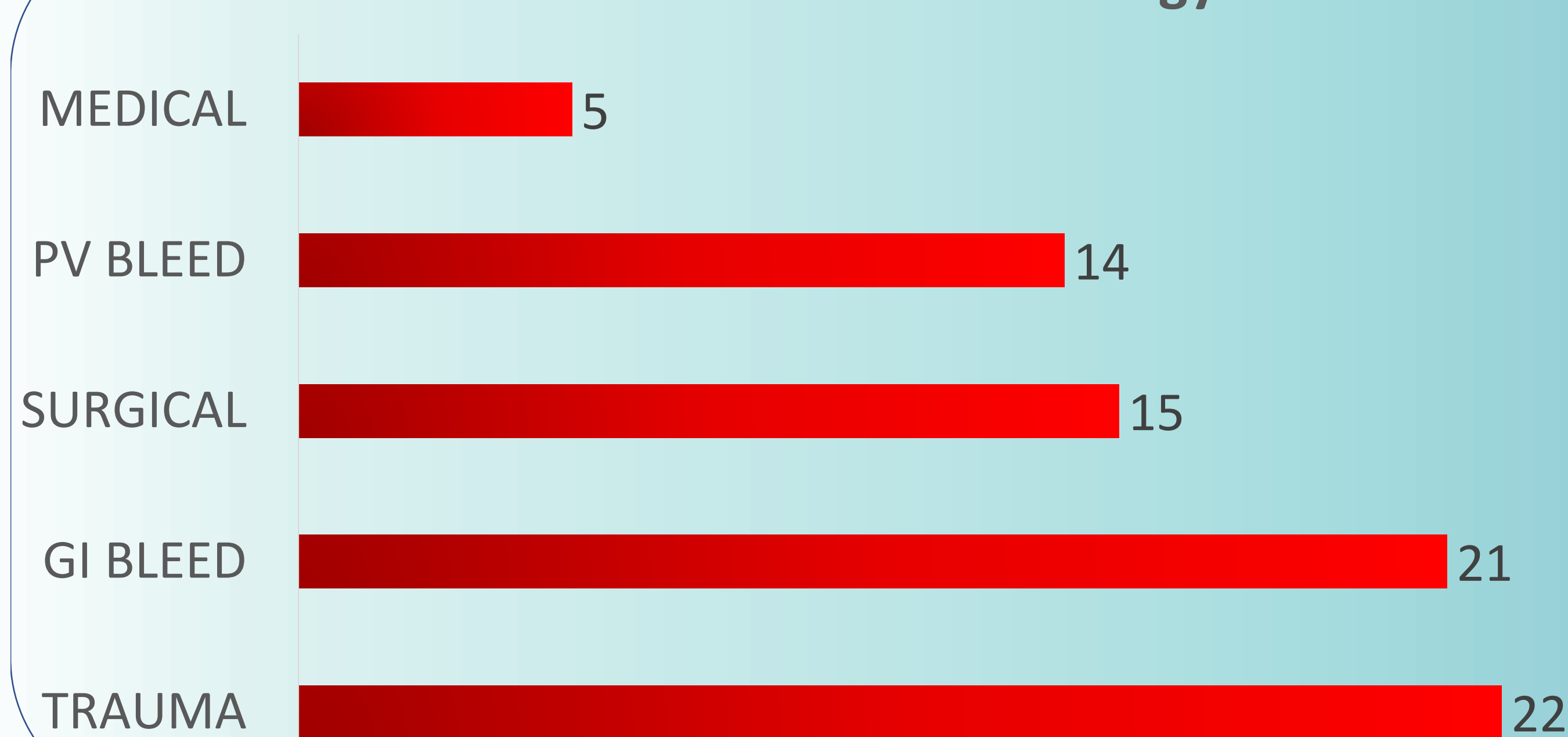
MTP Feb 19-Jul 23: Profile



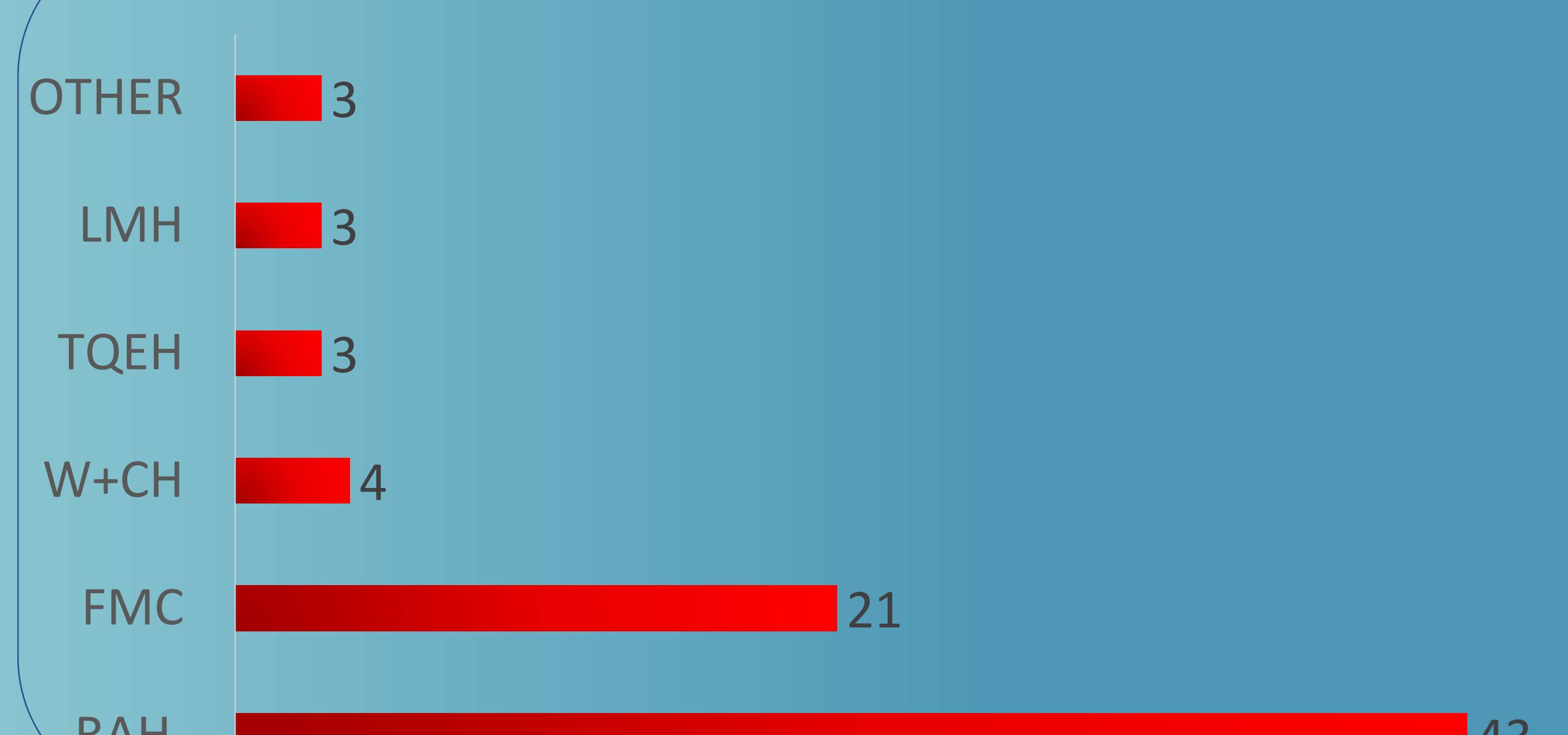
MTP Feb 19-Jul 23: Platform



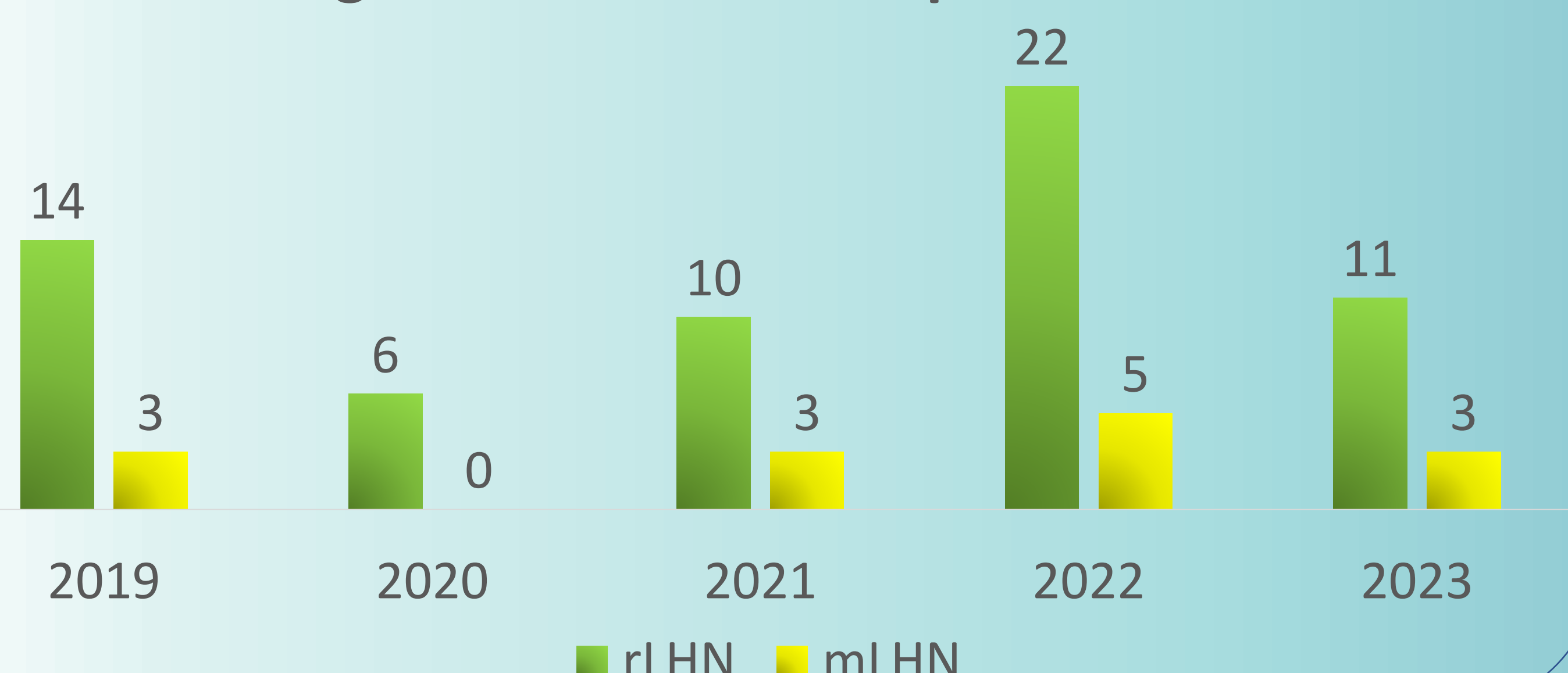
MTP Feb 19-Jul 23: Aetiology



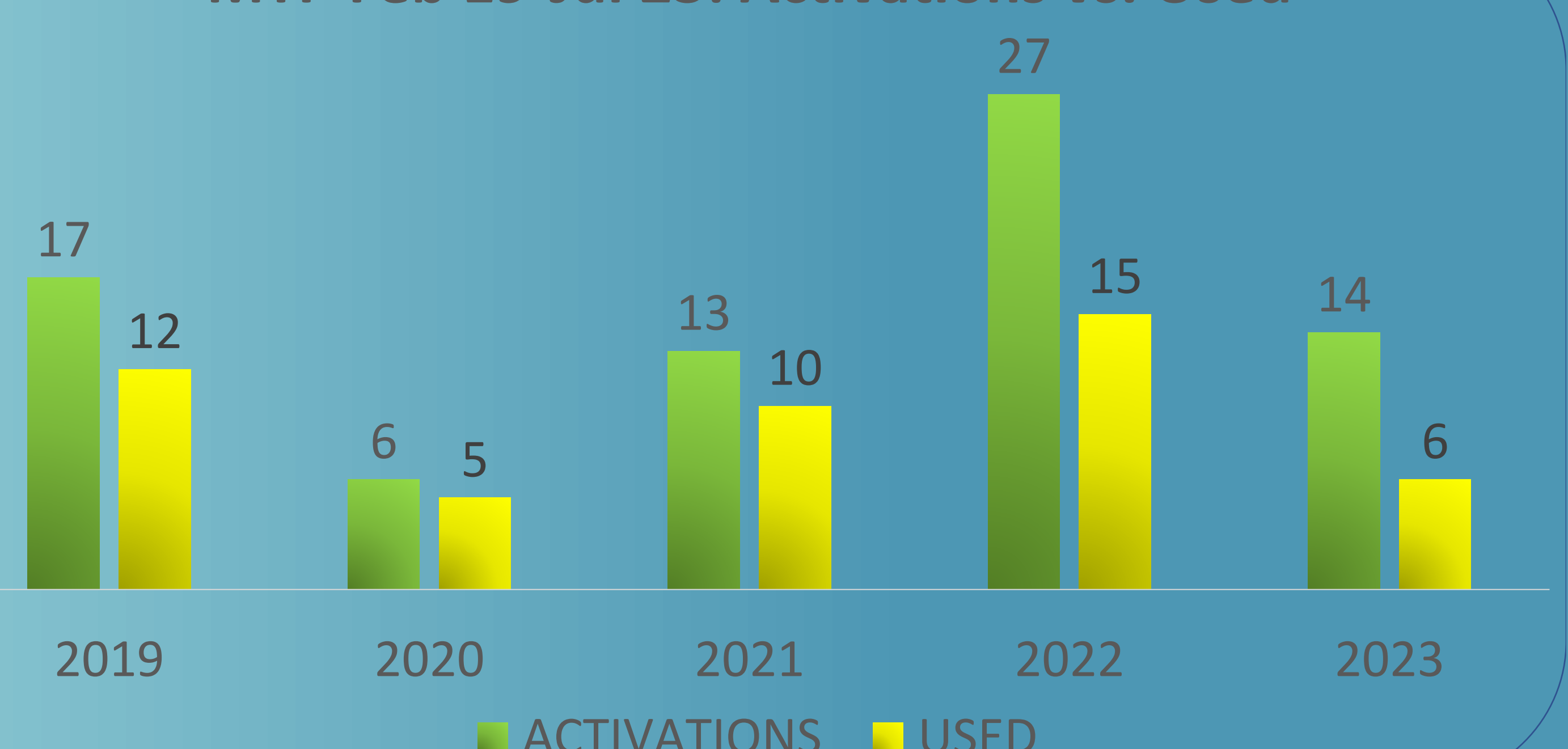
MTP Feb 19-Jul 23: Patient Destination



MTP Feb 19-Jul 23: Referral Location
Regional LHN vs. Metropolitan LHN



MTP Feb 19-Jul 23: Activations vs. Used



But, has it made a difference?

Blood product transfusion is not a benign therapy with acute traumatic coagulopathy being significantly associated with a higher severity of trauma, prehospital and in-hospital blood transfusions and massive transfusions¹. Since 2019, the MTP has been activated a total of 77 Times, with product being transfused on 48 occasions. Within the MedSTAR Clinical Governance Framework and through service based case reviews, the benefit of utilising some or all of the extended products contained in the MTP has been reported. However, this perceived benefit needs to be quantified through further investigation, patient follow-up including on-arrival to destination ROTEM and extended coagulation profiles.

1. Harris D, Martin D, Bednarz J & Ellis D (2021) Acute traumatic coagulopathy and the relationship to prehospital care and on-scene red blood cell transfusion. *Emergency Medicine Australasia*, 33(5), pp. 834-840

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