acid-Schiff and analysed with Leica software to provide a quantitative estimate of the hepatocellular glycogen content.

Result: Hepatic glycogen concentration rose during the first hour, followed by a steady decline thereafter until the end of perfusion. Contrary to our initial hypothesis that glucose concentration within the circuit would show an inverse relationship to glycogen stores in the liver cells, we found that glucose concentration closely followed the same trend.

Conclusion: Change in hepatocyte glycogen content provides an important insight into the synthetic function of a liver destined for transplant. Our research suggests that glucose concentration can be used as a surrogate marker for the synthetic function of a liver on NMP and provides valuable information on the glycogen-synthesising capability of the hepatocytes. In future, this could potentially aid the decision-making process with regards to liver graft transplant viability.

Take-home message: Perfusate glucose concentration could provide an insight into the viability of liver transplants

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PERFUSATE GLUCOSE REFLECTS TISSUE GLYCOGENATION DURING LIVER PERFUSION

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Introduction: Normothermic machine perfusion (NMP) is a method of organ preservation that aims to replicate the physiological environment, achieved by perfusing the livers with a blood-based perfusate at physiological inflow pressures and temperature. NMP also permits viability assessment through evaluation of the perfusate flow rates through the portal vein and hepatic artery. In addition to this, biochemical assessment and perfusate gas analysis can be performed to provide insights into the metabolic activity of the liver.

Method: Discarded human liver grafts (n=6), were perfused for 24 hours. Core biopsies and perfusate samples were taken from each liver at 5 distinct time intervals over 24 hours. Core biopsies were fixed and stained with periodic