

## Risk for TMA recurrence and renal outcomes after eculizumab discontinuation in aHUS: results from the Global aHUS Registry

Dr Gema Ariceta<sup>1</sup>, Dr Fadi Fakhouri<sup>2</sup>, Dr Lisa Sartz<sup>3</sup>, Dr Benjamin Miller<sup>4</sup>, Dr Vasilis Nikolaou<sup>5</sup>, Dr David Cohen<sup>6</sup>, Dr Andrew Siedlecki<sup>7</sup>, Dr Gianluigi Ardissino<sup>8</sup>, **Dr Sian Griffin**<sup>9</sup>

<sup>1</sup>Vall d' Hebron Hospital, and the Autonomous University of Barcelona, Barcelona, Spain, <sup>2</sup>CHU de Nantes, Nantes, France, <sup>3</sup>Department of Pediatrics, Skane University Hospital, Lund University, Lund, Sweden, <sup>4</sup>Alexion Pharmaceuticals, Inc, Boston, USA, <sup>5</sup>Parexel International, Uxbridge, UK, <sup>6</sup>Columbia University Medical Center, New York, USA, <sup>7</sup>Brigham and Women's Hospital, Boston, USA, <sup>8</sup>Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy, <sup>9</sup>University Hospital of Wales, Cardiff, UK

**Background:** Eculizumab (Ecu) modifies the course of disease in patients (pts) with atypical hemolytic uraemic syndrome (aHUS), but there are limited data to describe thrombotic microangiopathy (TMA) recurrence rates and long-term outcomes after Ecu discontinuation (d/c).

**Methods:** Pts in the Global aHUS Registry (NCT01522183) who received  $\geq 1$  month (mo) of Ecu with evidence of hematologic or renal response prior to d/c and with  $\geq 6$  mo of follow-up (f/u) were included. Those on chronic dialysis ( $\geq 3$  mo) at the time of Ecu d/c were excluded. Classification as pediatric ( $<18$  years) or adult was made at time of Ecu d/c.

**Results:** 151 pts (62% female) were included in the analysis: 34% were pediatric and 66% were adults (median [range] age at enrolment, 6.0 [0.6–17.1] and 35.7 [18.4–81.2], respectively), 11% had a family history of aHUS and 41% had a pathogenic variant or anti-CFH antibody. Median (range) duration of Ecu prior to d/c was 1.0 (0.1–5.1) and f/u was 2.3 (0.1–7.1) years. 24% experienced TMA recurrence after Ecu d/c. More pts required antihypertensives at f/u vs at d/c (71% vs 54%). Pts with a family history of aHUS, pathogenic variants, lower eGFR and extrarenal manifestations appeared to be at a higher risk of TMA recurrence (Table).

**Conclusions:** Discontinuation of Ecu is not without risk and may lead to TMA recurrence in some patients with aHUS. A careful assessment of risk factors prior to the decision to d/c Ecu is warranted.