

Dose conversion ratio between Epoetin Beta (Recormon®) and methoxypolyethylene glycol-epoetin beta (Mircera®) among Malaysian peritoneal dialysis patients with anaemia

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ABSTRACT

Introduction: Significant hemoglobin (Hb) variability has been observed among dialysis patients who were switched from epoetin beta (Recormon®) to methoxy polyethylene glycol-epoetin beta (Mircera®) by referring to manufacturer-recommended dose conversion. This study aims to determine the dose conversion ratio (DCR) between Recormon® and Mircera® in adult peritoneal dialysis (PD) patients. **Materials and Methods:** A prospective, single-arm study was conducted in Hospital Selayang between March 2022 and April 2024. Fifty-seven patients who received Recormon® with stable hemoglobin (Hb) levels were switched to Mircera® for 6 months, with dose adjusted to maintain Hb levels between 10–12 g/dL. Starting dose of Mircera® was 120 µg/month and 200 µg/month when previous weekly Recormon® was <8000 IU and 8000–16000 IU, respectively. The DCR was computed by dividing the baseline Recormon® dose (IU/week) by the Mircera® dose (µg/month) at month-6. **Results:** The baseline Recormon® dose was 4000 (IQR 4000) IU/week. Forty-six (80.7%) and 11 (19.3%) patients started Mircera® at 120 and 200 µg/month, respectively. The Hb at month-6 was 10.7±1.5 g/dL, which was significantly lower than the baseline Hb of 11.3±0.5 g/dL (95% confidence interval of Hb decline 0.12 to 0.89, P=0.01). Intra-patient Hb varied by 2.5±1.1 g/dL over the 6-month period. Twenty-seven (47.4%) and 32 (56.1%) patients had at least one Hb above 12 g/dL or below 10 g/dL, respectively upon switching to Mircera®. Forty-six (80.7%) patients required dose adjustment. At month-6, 8 (14.0%) patients had Hb above 12 g/dL and Mircera® was withheld. The median Mircera® dose at month-6 was 150 (IQR 100) µg/month. The median DCR of Recormon® to Mircera® was 33.3 (IQR 30.0). **Conclusion:** In PD patients, the DCR of Recormon® to Mircera® was 33.3. There was substantial Hb variability upon switching from Recormon® to Mircera® by referring to manufacturer-recommended dose conversion.