Rates of Adverse Events After High Dose IVIG Infusions Do Not Differ Among Patients Receiving 2 Day Versus 5 Day Infusions

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Objective: To determine whether the rate of adverse events after high dose IVIG infusions is affected by the number of days over which the infusion is given.

Background: IVIG is frequently prescribed for a variety of autoimmune neuromuscular and dermatologic disorders. Common dosing is 2g/kg administered in divided doses over 2-5 days. If the adverse event rate does not differ between infusions given over 2 versus 5 days this presents an opportunity to deliver equivalent care at a lower cost.

Methods: We reviewed the nursing and pharmacy records of 174 patients who received 2160 high dose IVIG infusions (1.5 - 2.5 g/kg). 95 women and 79 men diagnosed with CIDP (n=672), myasthenia gravis (n=275), myositis (n=292), autoimmune dermatologic disorders (n=372), or other autoimmune neurologic disorders were included (n=359). Statistical analysis was performed based on chi square tests and logistic regression.

Results: Side effect rate per infusion was 5.74% (124/2160). Rates of serious adverse events such as aseptic meningitis, thrombotic events, or anaphylaxis were extremely low at 0.13% (3/2160) and did not differ among patients receiving 2, 3, 4, or 5 day IVIG dosing regimens. Minor adverse events such as headache, rash, nausea, or hypertension were also rare at 5.60% (121/2160) and also did not differ among patients receiving the different IVIG dosing regimens. Subgroup analysis revealed that disease state and gender may affect side effect rates so these were included as covariates in subsequent logistic regression models.

Conclusions: The overall rate of adverse events does not differ between 2 and 5 day IVIG regimens. Non-significant trends toward increased side effect rates in females, myasthenics patients and patients with shorter dosing regimens were observed. Prospective studies are needed to confirm these findings and to elucidate mechanisms for disease and gender specific effects on side effect rates.