Management of patients with Adrenal Insufficiency attending Galway University Hospital compared with current Best Practice

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Introduction:
Patients with Adrenal Insufficiency (AI) lack endogenous Cortisol and require oral Hydrocortisone. In Primary AI (PAI) endogenous aldosterone synthesis is also lost and patients require oral Fludrocortisone¹.

We aimed to audit two important long term issues:
1. Adequacy of steroid replacement including Fludrocortisone, assessed by Plasma Renin Activity (PRA).
2. Wearing of Medic-Alert Jewellery (MAJ)

While oral replacement of endogenous hormones is life-saving, patients often report poor quality of life compared to those with normal adrenal function. Optimising steroid dosing, including Fludrocortisone may be helpful².

Medic-Alert Jewellery is advised to alert health care providers to the need for stress dose steroids in acute illnesses. This aims to reduce mortality associated with adrenal crisis.

Methods:
The hospital’s Patient Correspondence System identified letters including the terms “Adrenal Insufficiency” and “Addison’s Disease”. Such identified patients were classified as having primary or secondary AI. Recent Hydrocortisone and Fludrocortisone doses were recorded.

Patients were contacted using registered telephone numbers and invited to participate in the study. Electronic laboratory results were reviewed for PRA measurements.

Results:
Review of >200 letters identified 39 patients with AI, 21 with PAI and 18 with Secondary AI. 21 patients were successfully contacted and consented to a telephone survey. Of these, 20 (95%) were aware of the need for MAJ and 62% owned MAJ.

Among patients with PAI 67% had a PRA performed in the past five years and 47% in the previous year. Two thirds of patients had PRA above the recommended target range.

Discussion:
Patients with AI require complex and long-term follow-up. Establishing a database of AI patients allows for audit of patient care and adherence to current guidelines. Patients attending our unit are well advised on the need for wearing MAJ but less than two thirds of patients own MAJ.

PRA, a useful measurement in determining appropriate fludrocortisone replacement was available on less than half the patients for the previous year and even when available was above the recommended target in over two thirds of patients.

References:

Table 1 – Frequency PRA Measurement over time