

## PLASMA CORTISOL MEASUREMENT: ORDERING PRACTICES

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### Introduction

Cortisol level measurement is required in the diagnosis and management of adrenal, pituitary and hypothalamic pathologies.

**Aim:** The aim of this study was to evaluate clinicians' practice in ordering cortisol test.

⇒ Among cortisol test requests with clinical indications of suspecting adrenal insufficiency, following-up adrenal insufficiency and following-up of pituitary and hypothalamic pathologies only 31%, 25% and 40% were pathological respectively.

### Methods

- A retrospective study between January 2024 and February 2024
- Sixty three (63) cortisol requests
- Data were collected by the laboratory computer system (Health Lab) Only requests of 8 a.m plasma cortisol were included
- We collected age, sex and ordering origins
- Cortisol tests were performed based on electrochemiluminescence immunoassay (eCLIA) by Dxi600® Beckman Coulter
- Frequencies of cortisol requests were classified according to the reasons and origins of ordering

### Discussion

The measurement of plasma cortisol is critical for diagnosing adrenal disorders, but it is essential to align testing with actual clinical indications. Overuse or unnecessary prescriptions can lead to misdiagnosis or inappropriate management. Therefore, cortisol tests should be ordered based on clear, specific clinical criteria rather than routine or speculative use. This approach ensures that testing is both effective and efficient, avoiding potential pitfalls associated with overprescription

### Results

- **Mean Age :** 38,8 years (6 mois-85 years )
- **Sex- ratio (M/F) :** de 0,8
- **Requesting departments :** Cortisol tests were requested primarily by the endocrinology department (54%), followed by the pediatrics department (17.5%) and the internal medicine department (14.3%).
- **Reasons for prescribing a cortisol test :** (Fig 1)

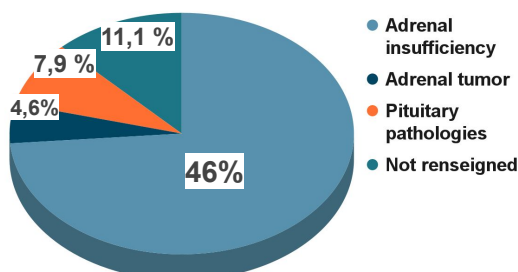


Fig 1: Indications for prescribing a cortisol test

### Conclusion

There was an over-ordering for cortisol tests in our hospital practice. This request should be more rational in order to limit healthcare costs.

### Bibliography

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