

## **Title**

Evaluation and management of patients admitted with severe hypertension at Mater Dei Hospital- A retrospective Audit

## **Background/Introduction**

Uncontrolled hypertension, even if severe (BP  $\geq 180/\geq 110$ mmHg), may be asymptomatic. Some may present with a hypertensive emergency (severe hypertension with acute end-organ damage) requiring immediate in-hospital treatment, while others present with a hypertensive urgency (without acute end-organ damage).

## **Purpose**

The aim of our audit was to evaluate the management of severe hypertension and compare this to the 2018 ESC/ESH Guidelines.

## **Methods**

Adults admitted between July-October 2020 from the emergency department (ED) into medical wards having a blood pressure of  $\geq 180/\geq 110$ mmHg were included. Data was collected through iSOFT and electronic case summaries (ECS). The standard used for this audit was the 2018 ESC/ESH Guidelines for the management of arterial hypertension.

## **Results**

Seventy-seven patients were included, with 52% (n=40) being male. The commonest age group was 70-80 years (25%). Most of the patients were already known hypertensives (73%; n=56). Ten percent (n=8) presented with a hypertensive emergency, of which 3 passed away during the admission.

Left ventricular hypertrophy on ECG was documented in 27% of cases (n=21). Less than half of patients had urinalysis performed during admission (47%; n=36). Other investigations done for end-organ damage included computed tomography (CT) of the brain (n=34), ultrasonography of the kidneys (n=19), echocardiography (n=18) and fundoscopy (n=6). Calcium channel blockers were by far the most common anti-hypertensive agent administered in the ED (46%).

## **Conclusion(s)**

Our results show that investigation for target end-organ damage is suboptimal. Devising a local guideline, with subsequent re-auditing could result in improved management of hypertensive urgency, decreasing the risk of it developing into an emergency. Moreover, this audit highlights the need to improve BP control at primary care level to avoid development of detrimental complications.

## References

Williams B, Mancia G, Spiering W, et al. ESC Scientific Document Group, 2018 ESC/ESH Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH), *European Heart Journal*, Volume 39, Issue 33, 01 September 2018, Pages 3021–3104