Observed incidence of linezolid-associated serotonin syndrome during concomitant serotonergic therapy

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INTRODUCTION

While confirmed cases of serotonin syndrome (SS) have been associated with linezolid, the incidence in patients receiving linezolid in combination with other serotonergic medications has not been well established.

The Hunter Serotonin Toxicity Criteria (HSTC) are the most widely accepted criteria used to diagnosis SS.

OBJECTIVE

Prospectively determine the incidence of SS in hospitalized patients receiving linezolid and concomitant serotonergic therapy.

METHODS

IRB-approved prospective analysis

Inclusion criteria: ≥ 18 years age, receipt of linezolid between March 1, 2012 and June 15, 2012

Concomitant serotonergic therapy defined as any agent known to affect serotonin activity

A CPDE-based report of active linezolid orders was generated daily to capture patients for inclusion

Electronic health records (EHR) of included patients were assessed for signs and symptoms of SS daily until development of SS or hospital discharge

If documentation in the EHR suggested possible SS, the primary patient care team was contacted to confirm

RESULTS

130 unique courses of linezolid were received by 121 unique patients

37 (28.5%) were in patients who received concomitant serotonergic therapy

During concomitant serotonergic therapy

Six patients were agitated

Three of the six were agitated throughout admission

The other was agitated 9 days after completion of linezolid

One patient was diaphoretic during combination therapy

Although the primary team did not make a diagnosis of SS, the ID consult team listed SS on the differential for a patient hospitalized with traumatic brain injury and sympathetic storming who had persistent fever, tachycardia, and flushing

DISCUSSION

The incidence of linezolid-associated SS is rare despite use with serotonergic therapy at West Virginia University Hospitals

Further observation is needed in order to describe the true incidence of this life-threatening reaction and related risk factors.

REFERENCES


