INPLASY PROTOCOL

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None declared.

Risk factors of cefoperazone - sulbactam induced coagulation dysfunction: A systematic review and Meta-analysis

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Review question / Objective: **Cefoperazone - sulbactam is a compound preparation of the third generation cephalosporin and β -lactamase inhibitors. At present, it is widely used in the treatment of multiple drug resistant bacteria infection or severe infection. However, with the application of cefoperazone sodium and sulbactam sodium, the incidence of adverse reactions gradually increased, and the adverse reactions resulting in abnormal coagulation function are more and more concerned. The purpose of this systematic evaluation was to explore the risk factors of coagulation dysfunction caused by cefoperazone - sulbactam. P: Patients treated with cefoperazone-sulbactam; I/E: Diagnosis of coagulation dysfunction; C:no; O:Risk factors of cefoperazone - sulbactam induced coagulation dysfunction; S:case-control or cohort studies.**
Condition being studied: **Cefoperazone - sulbactam is a compound preparation of the third generation cephalosporin and β -lactamase inhibitors. At present, it is widely used in the treatment of multiple drug resistant bacteria infection or severe infection. However, with the application of cefoperazone sodium and sulbactam sodium, the incidence of adverse reactions gradually increased, and the adverse reactions resulting in abnormal coagulation function are more and more concerned.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 February 2022 and was last updated on 13 February 2022 (registration number INPLASY202220046).

INTRODUCTION

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METHODS

Search strategy: A search strategy will be developed using a combination of medical subheadings (MeSH) words and free word. TheMeSH words include "Cefoperazone","Sulbactam","Blood Coagulation Disorders".Taking the strategy of retrieving an PubMed database as example, the search strategy is as follows:
#1 ("Cefoperazone"[Mesh]) OR (Cefoperazone[Title/Abstract] OR Cefoperazon[Title/Abstract] OR Cefoperazone Sodium[Title/Abstract] OR Sodium, Cefoperazone[Title/Abstract] OR Cefoperazone Sodium Salt[Title/Abstract] OR Salt, Cefoperazone Sodium[Title/Abstract] OR Sodium Salt, Cefoperazone[Title/Abstract] OR Cefobid[Title/Abstract] OR Céfobis[Title/Abstract])
#2 ("Sulbactam"[Mesh]) OR (Sulbactam[Title/Abstract] OR Penicillanic Acid Sulfone[Title/Abstract] OR Sulfone, Penicillanic Acid[Title/Abstract] OR Sulbactam Sodium[Title/Abstract] OR Sodium, Sulbactam[Title/Abstract] OR Combactam[Title/Abstract])
#3 #1 and #2
#4 ("Blood Coagulation Disorders"[Mesh]) OR (Blood Coagulation Disorders[Title/Abstract] OR Disorders, Blood Coagulation[Title/Abstract] OR Coagulation Disorders, Blood[Title/Abstract] OR Blood Coagulation Disorder[Title/Abstract] OR Coagulation Disorder, Blood[Title/Abstract] OR Disorder, Blood Coagulation[Title/Abstract])
#5 (relative[Title/Abstract] AND risk*[Title/Abstract]) OR (relative risk[Text Word]) OR risk*[Text Word]
#6 #3 and #4 and #5.

Participant or population: Patients treated with cefoperazone-sulbactam.

Intervention: No.

Comparator: No.

Study designs to be included: case-control or cohort studies.

Eligibility criteria: Papers were screened using the following inclusion criteria:case-control studies or cohort studies on risk factors of cefoperazone-sulbactam induced coagulation dysfunction . The observation group was the patients with abnormal coagulation after cefoperazone-sulbactam application, while the control group was the patients without coagulation after cefoperazone-sulbactam application, and at least one risk factor was included in the included literature.Exclusion criteria: case reports, editorials, reviews and basic studies, incomplete data that are not otherwise available, duplicated or overlapping studies, and literature that are not available for risk factors.Exclusion criteria: case reports, editorials, reviews and basic studies, incomplete data that are not otherwise available, duplicated or overlapping studies, and literature that are not available for risk factors.

Information sources: The following electronic databases will be searched from the inception through the present to find

studies that live up to standard: our PubMed, EMBASE, Web of Science, Cochrane Library, CNKI, Wanfang, CBM and VIP. We will also search clinicaltrials.gov. First, the first batch of documents that a meet the standards are determined through the selection of titles and abstracts, then further screening is 2 reviewers selecting by reading the full text and recording the cause of excluded literature. If 1 standard research is we will not available online, send an email to the author to get the full text or the required data.

Main outcome(s): The literature provides the influencing factors of cefoperazone - sulbactam induced coagulation dysfunction; Logistic regression analysis data were provided to study related factors, including OR and 95% CI.

Quality assessment / Risk of bias analysis: NOS scoring system.

Strategy of data synthesis: Strategy of data synthesis: Meta-analysis was carried out with Revman and Stata 15. 1 software. OR(95% CI) indicates the combined effective value of each research. P50%, and p of q test < 0.05, then it is considered Because of the heterogeneity of each study, the random effect model is adopted.

Subgroup analysis: Subgroup analysis is necessary according to the studies eventually included contains >10 articles, the Egger test will be conducted to evaluate publication bias.

Sensitivity analysis: We conduct the sensitivity analysis by excluding literature successively. When the system review.

Country(ies) involved: China.

Keywords: Cefoperazone-sulbactam, Blood Coagulation Disorders, Risk Factors.

Contributions of each author:
Author 1 - Yupei Hao.
Author 2 - Lingjiao Wang.
Author 3 - Jing Yu.