INPLASY PROTOCOL

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None declared.

Risk factors for tigecycline-induced hypofibrinogenaemia: A systematic review and Meta-analysis

Hao, Y[1]; Yu, J[2]; Wang, L[3].

Review question / Objective: **Hypofibrinogenaemia is major treatment-related adverse event associated with tigecycline therapy, which in some cases can result in treatment termination. We aimed to identify the risk factors for tigecycline-induced hypofibrinogenaemia. P: Patients treated with tigecycline; I/E: Diagnosis of hypofibrinogenaemia; C:no; O:Risk factors of tigecycline induced hypofibrinogenaemia; S:case-control or cohort studies.**
Condition being studied: **Hypofibrinogenaemia is major treatment-related adverse event associated with tigecycline therapy, which in some cases can result in treatment termination. We aimed to identify the risk factors for tigecycline-induced hypofibrinogenaemia.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 February 2022 and was last updated on 16 February 2022 (registration number INPLASY202220058).

INTRODUCTION

Review question / Objective: **Hypofibrinogenaemia is major treatment-related adverse event associated with tigecycline therapy, which in some cases can result in treatment termination. We aimed to identify the risk factors for tigecycline-induced hypofibrinogenaemia. P: Patients treated with tigecycline; I/E: Diagnosis of hypofibrinogenaemia; C:no; O:Risk factors of tigecycline induced hypofibrinogenaemia; S:case-control or cohort studies.**

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tigecycline therapy, which in some cases can result in treatment termination. We aimed to identify the risk factors for tigecycline-induced hypofibrinogenaemia.

METHODS

Search strategy: Search strategy: A search strategy will be developed using a combination of medical subheadings (MeSH) words and free word.TheMeSH words include "tigecycline","Afibrinogenemia". Taking the strategy of retrieving an PubMed database as example, the search strategy is as follows:
#1 (Tigecycline[Title/Abstract] OR TBG-MINO[Title/Abstract] OR (9-(tert-Butylglycylamido)minocycline) [Title/Abstract] OR Tygacil[Title/Abstract] OR GAR 936[Title/Abstract] OR GAR-936[Title/Abstract] OR GAR936[Title/Abstract]) OR ("Tigecycline"[Mesh])
#2 (Afibrinogenemia[Title/Abstract] OR Afibrinogenemias[Title/Abstract] OR Congenital Afibrinogenemia[Title/Abstract] OR Afibrinogenemia, Congenital[Title/Abstract] OR Afibrinogenemias, Congenital[Title/Abstract] OR Congenital Afibrinogenemias[Title/Abstract] OR Familial Afibrinogenemia[Title/Abstract] OR Afibrinogenemia, Familial[Title/Abstract] OR Afibrinogenemias, Familial[Title/Abstract] OR Familial Afibrinogenemias[Title/Abstract] OR Congenital Afibrinogenaemia[Title/Abstract] OR Afibrinogenaemia, Congenital[Title/Abstract] OR Afibrinogenaemias, Congenital[Title/Abstract] OR Congenital Afibrinogenaemias[Title/Abstract] OR Hypofibrinogenemia, Congenital[Title/Abstract] OR Congenital Hypofibrinogenemia[Title/Abstract] OR Congenital Hypofibrinogenemias[Title/Abstract] OR Hypofibrinogenemias, Congenital[Title/Abstract] OR Deficiency, Fibrinogen[Title/Abstract] OR Fibrinogen Deficiencies[Title/Abstract] OR Fibrinogen Deficiency[Title/Abstract] OR Hypofibrinogenemia[Title/Abstract] OR Hypofibrinogenemias[Title/Abstract]) OR ("Afibrinogenemia"[Mesh])
#3 (relative[Title/Abstract] AND risk*[Title/Abstract]) OR (relative risk[Text Word]) OR risk*[Text Word]
#4 #1 and #2 and #3.

Participant or population: Patients treated with tigecycline.

Intervention: No.

Comparator: No.

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

Eligibility criteria: Eligibility criteria: Papers were screened using the following inclusion criteria:case-control studies or cohort studies on risk factors of tigecycline induced chypofibrinogenaemia.patients were assigned to the hypofibrinogenaemia group (< 2.0 g/L) and normal fibrinogen (normal) group (≥ 2.0 g/L) to assess the clinical features of patients with tigecycline-associated hypofibrinogenaemia. 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 tigecycline induced hypofibrinogenaemia; Logistic regression analysis data were provided to

study related factors, including OR and 95% CI.

Quality assessment / Risk of bias analysis: The quality of each included study was assessed using the modified Newcastle-Ottawa scale (NOS) . Studies with an NOS score <3 were classified as poor-quality studies and excluded from this meta-analysis.

Strategy of data synthesis: Two software, Revman and STATA, were selected to merge the extracted data. Firstly, heterogeneity was investigated. <50%, the fixed effect model was used for meta-analysis. When the heterogeneity test results of the included studies were ≥ 50%, the random-effect model was used for meta-analysis.

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: Hypofibrinogenaemia, Risk factors, Tigecycline.

Contributions of each author:
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Author 2 - Jing, Yu.
Author 3 - Lingjiao, Wang.