Expanded Materials and Methods. Systematic Review Search Criteria and Results

Search Methods

We searched the Cochrane Stroke Group Trials Register (last searched in May 2020), the Cochrane Database of Systematic reviews (CDSR) and the Cochrane Central Register of Controlled Trials (CENTRAL) (*The Cochrane Library* 2020, Issue 2), MEDLINE (Ovid) (1966 to May 2020), and the Stroke Trials Registry (searched May 2020).

Selection Criteria

Meta-analyses and trials including the topics "tenecteplase AND stroke" were included. MeSH heading included "stroke" and timespan included all years. The search was refined by including multicenter study, clinical trial, meta analysis, clinical trial phase III, comparative study, clinical trial phase II, or randomized controlled trials. Case reports, editorials and comments were excluded.

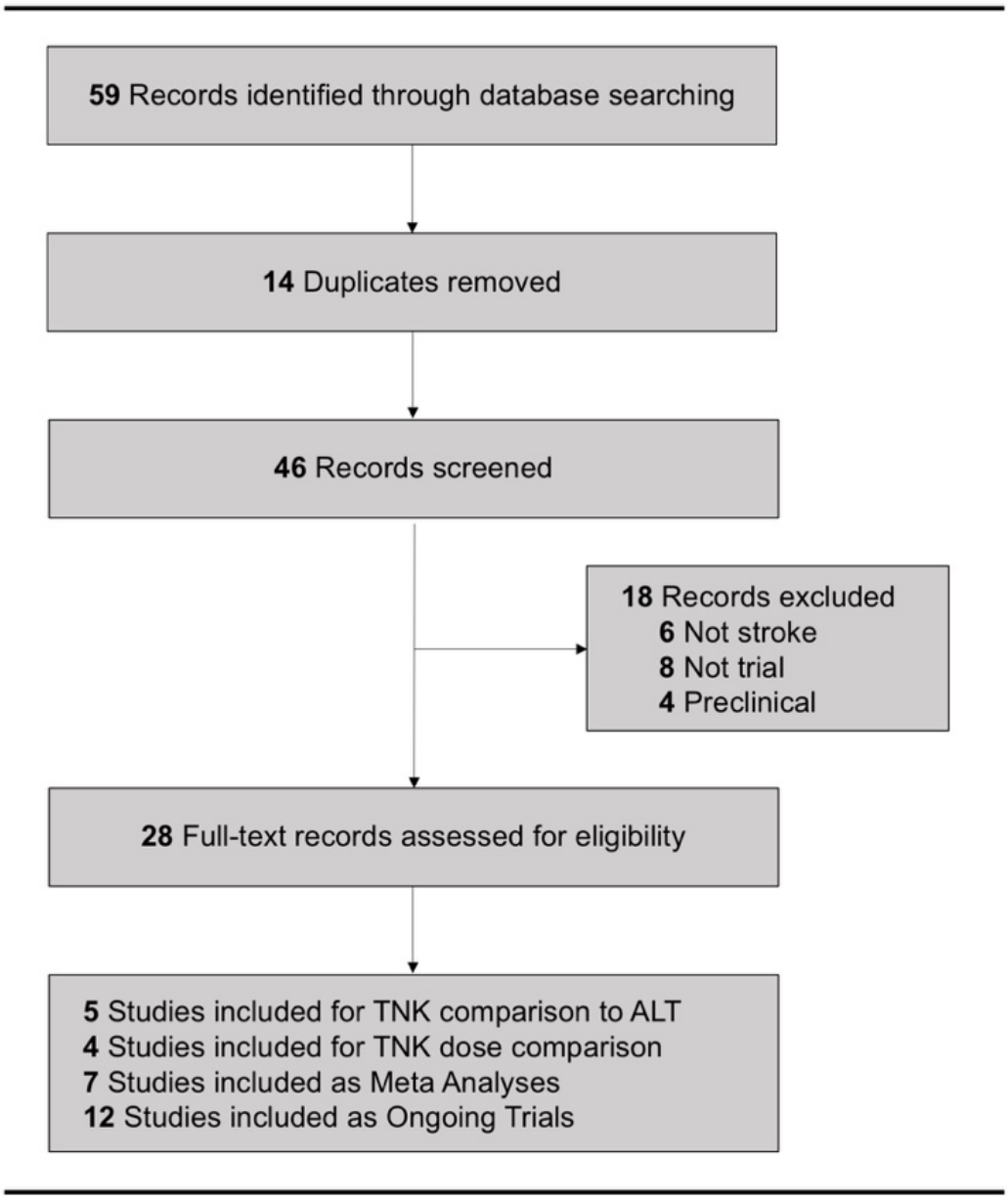
MEDLINE search criteria:

You searched for: TOPIC: (tenecteplase AND stroke) [n=193]
Refined by: [excluding] PUBLICATION TYPES: (CASE REPORTS OR EDITORIAL OR COMMENT) AND MeSH HEADINGS: (STROKE) AND PUBLICATION TYPES: (MULTICENTER STUDY OR CLINICAL TRIAL OR META ANALYSIS OR CLINICAL TRIAL PHASE III OR COMPARATIVE STUDY OR CLINICAL TRIAL PHASE II OR RANDOMIZED CONTROLLED TRIAL)
Timespan: All years. Indexes: MEDLINE.

Cochrane search:

59 Trials matching Tenecteplase in All Text - in Trials with 'Stroke' in Cochrane Groups.
Cochrane Central Register of Controlled Trials, Issue 5 of 12, May 2020

SUPPLEMENTAL FIGURE 1



SUPPLEMENTAL TABLE I

Biologic advantages of tenecteplase	**Details**
Increased half life	Conformational change in tenecteplase reduces its elimination and prolongs its plasma half-life (α-half-life 11–20 minutes, β-half-life 41–138 minutes)[11, 68]
Higher fibrin specificity	Tenecteplase has higher specificity (14-fold) to fibrin compared to alteplase due to the T and K mutations which decrease the catalytic efficiency of plasminogen activation by TNK-t-PA in the presence of the complex of D-dimer noncovalently linked to fragment E.[11, 19, 68]
Increased resistance to plasminogen activator inhibitor-1	Tenecteplase has an increased (80-fold) resistance to plasminogen activator inhibitor-1 due to tetra-alanine substitution in position 296–299.[9]
Less bleeding	Lytic activity of tenecteplase is restricted to plasmin on the fibrin surface, thus avoiding the breakdown of fibrinogen, factor V, factor VIII and α2-antiplasmin.[12, 68]
Levels not affected by nitrates	The levels of circulating tenecteplase are not affected by the presence of nitrates.[69]
More rapid recanalization	Tenecteplase results in faster time to reperfusion and longer duration of recanalization.[12, 70]
Lower thrombin activation	Tenecteplase has no paradoxical systemic procoagulant effect due to the lower extent of activation of the kallikrein-factor XII system than alteplase.[15]