



RECOMMENDATION FOR ALTERNATIVE THERAPY FOR STREPTOKINASE

The Primary Health Care and Adult Hospital Level Standard Treatment Guidelines (STGs) and Essential Medicines List (EML) currently recommends the use of streptokinase as thrombolytic therapy for the treatment of ST elevation myocardial infarction (STEMI) in adult patients. The supplier of streptokinase, however, is unable to meet supply demands due to unforeseen operational delays¹. The supplier anticipates that the supply of streptokinase will resume from March 2019.

While streptokinase is unavailable, it is recommended that alteplase be used as thrombolytic therapy (when indicated) in patients with STEMI.

See Primary Health Care STGs and EML, 2018: Section 4.4 Myocardial infarction, acute (AMI)/ST elevation myocardial infarction (STEMI) and Adult Hospital Level STGs and EML, 2015: Section 3.2.1 ST elevation myocardial infarction (STEMI) for the treatment of STEMI, including indications and contraindications for thrombolysis.

Alteplase dose and directions for use:

A: PRIMARY HEALTH CARE LEVEL –with urgent referral to secondary level

- Alteplase, IV infusion^{2 3}: (Doctor initiated)
o Do not exceed 100 mg⁴.
o If within 6 hours of symptom onset:

Table with 4 columns: Weight, Bolus, Next 30 minutes, Next 60 minutes. Rows for >67 kg and ≤67 kg.

Indications and contraindications are similar to those for streptokinase, as indicated in the table below (except that prior use of streptokinase is not a contraindication):

Table with 2 columns: Indications, Contra-indications. Lists specific medical conditions for both.

1 Mirren (Pty) Ltd, Actor Speciality: communication on file at NDoH
- Single exit price of streptokinase 1.5 million units ≈R 4000.00, 21 December 2018.
2 Dundar Y, Hill R, Dickson R, Walley T. Comparative efficacy of thrombolytics in acute myocardial infarction: Asystematic review. QJM - Monthly Journal of the Association of Physicians. 2003;96(2):103-13.
3 Thrombolytics (Therapeutic class): National Department of Health: Affordable Medicines, EDP-Adult Hospital level. Medicine Review: Thrombolytics, therapeutic class for STEMI, July 2015.
4 Quotation price of alteplase 100mg: R 11 830.88, 29 January 2019

Monitor the following, continuously and also during transfer:

- » pulse
- » blood pressure
- » respiration depth and rate (count for a full minute)
- » ECG

Note: Defibrillator should be readily available at all times including during transport.

B: ADULT HOSPITAL LEVEL – management by doctor/medical officer

- Alteplase, IV infusion, as per recommendations in the PHC STGs and EML, above.

Adjunctive treatment

- Low molecular weight heparin^{5 6}, e.g.:
 - Enoxaparin.
 - o *Loading dose:* IV, 30 mg as a bolus, followed by SC, 1 mg/kg as a single dose (total cumulative dose not to exceed 100mg).
 - o *Maintenance dose:* SC, 1mg/kg 12 hourly.

In the elderly (> 75 years of age), omit IV loading dose and reduce SC dose:

- o *Loading dose:* SC, 0.75 mg/kg as a single dose.

Note: These recommendations are provided as an interim measure and the National Department of Health will advise when the supply of streptokinase is stabilised and acquisition can be processed.

Provinces and Health Care Facilities are requested to distribute and communicate this information in consultation with the Pharmaceutical and Therapeutics Committees.

Kindly share with all healthcare professionals.

Comments may be submitted via e-mail or post:

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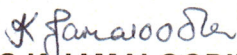
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Kind regards



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DIRECTOR: AFFORDABLE MEDICINES

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⁵ Eikelboom JW, Quinlan DJ, Mehta SR, Turpie AG, Menown IB, Yusuf S. Unfractionated and low-molecular-weight heparin as adjuncts to thrombolysis in aspirin-treated patients with ST-elevation acute myocardial infarction: a meta-analysis of the randomized trials. *Circulation*. 2005 Dec 20;112(25):3855-67. <https://www.ncbi.nlm.nih.gov/pubmed/16344381>

⁶ De Luca G, Marino P. Adjunctive benefits from low-molecular-weight heparins as compared to unfractionated heparin among patients with ST-segment elevation myocardial infarction treated with thrombolysis. A meta-analysis of the randomized trials. *Am Heart J*. 2007 Dec;154(6):1085.e1-6. <https://www.ncbi.nlm.nih.gov/pubmed/18035079>