

Circuit patency & exchange rates: Original vs. generic nafamostat in CRRT for critically ill adults

고신대학교 복음병원 내과¹, 고신대학교 복음병원 신장내과²

박민희¹, 허수정^{1,2}, 김양현^{1,2}, 이나점^{1,2}, 김예나^{1,2}, 정연순^{1,2}, 임학^{1,2}, *신호식^{1,2}

Background/Aims: Nafamostat mesylate is widely used as an anticoagulant in continuous renal replacement therapy (CRRT). The generic versions of nafamostat mesylate have identical main components to the original product. However, it is questionable whether the generic versions have the same efficacy as the original. Therefore, we compared the circuit patency and exchange rates of the original nafamostat mesylate and a generic version to determine which is more efficient as an anticoagulant in CRRT.

Methods: This retrospective study enrolled 1,255 patients hospitalized to receive CRRT who received the original version of nafamostat mesylate or a generic version between January 2010 and July 2018. We evaluated the filter lifespan, number of filters used per day, mean blood flow, and transmembrane pressure (TMP).

Results: The mean filter lifespan was 36.3 ± 15.1 hours in the original product group and 22.2 ± 16.2 hours in the generic product group, which was not a statistically significant difference ($p=0.060$). The mean TMP was 62.2 ± 47.3 mmHg in the original product group and 74.5 ± 45.6 mmHg in the generic product group ($p=0.045$).

Conclusions: This retrospective study suggests no meaningful difference in filter lifespan between the original and generic versions of nafamostat mesylate. However, TMP was lower in the original product group than in the generic product group.

Table 4. Filter characteristics during continuous renal replacement therapy according to anticoagulant choice

	NM original group (n=732)	NM generic group (n=328)	p-value
TMP (mmHg)	62.2 ± 47.3	74.5 ± 45.6	0.045
Filter lifespan (hr)	36.3 ± 15.1	22.2 ± 16.2	0.060
Number of filters (/day)	0.9 ± 0.6	1.7 ± 0.7	0.070
Mean blood flow (mL/min)	121.0 ± 60.8	124.5 ± 39.6	0.090

Values are presented as mean \pm standard deviation.

NM, nafamostat mesylate; TMP, transmembrane pressure.