



[Home](#)
[Announcements](#)
[Archives](#)
[Fast Track Issue](#)
[Search](#)
[User](#)
[About](#)
[FYI](#)
[Go to mat.or.th](#)

Journal of the Medical Association of Thailand, Vol 96, No 3

Home > Vol 96, No 3 > [Tantivesruangdet](#)

Font Size: [A](#) [A](#) [A](#)

Stability of Adrenaline in Ambulance and Drug Storage Room Narenthorn Center, Rajavithi Hospital

Nopmanee Tantivesruangdet

Abstract

Background: The stability and quality of Adrenaline medications were advocated to be stored in temperature labeled at 2°C to 8°C at drug storage room. Thailand is located in a tropical area with the average room temperature within 25°C. There was no previous study of adrenaline medication stability and quality in Thailand.

Objective: To assess the stability and quality of Adrenaline stored at room temperature in Ambulance and drug storage room of Narenthorn center, Rajavithi Hospital.

Material and Method: Forty vials of Adrenaline Bitartrade were stored at the temperature in each season for a period of 4 weeks. Half were stored in one Ambulance and the other half in a drug storage room. Samples were then analyzed for their appearance, pH and using stability indicating High Performance Liquid Chromatography (HPLC).

Results: The average temperature in the drug storage rooms were 30°C, 28°C and 27°C in hot, rainy and cool seasons respectively; and 34°C, 32°C and 31°C in Narenthorn Ambulance. The appearance of adrenaline was not changed as it was still clear. The average pH is 3.18 to 3.36. Adrenaline was found to be stable when storage in both ambulance and drug storage room. The percent drug remaining was 90.1% to 115.1%. There was no significant difference in between drug quality the two storage places ($p = 0.792$). No significant difference was found in the percent drug remaining between the hot and cool season. There was significant difference in the percent drug remaining between the rainy season from other seasons ($p < 0.005$).

Conclusion: Even though the temperature in the drug storage room and Ambulance was higher than recommended storage temperature, adrenaline stability and quality were not changed when testing by HPLC.

Keywords: Drug storage, Stability, Drug quality, ACLS drug, Ambulance

Full Text: [PDF](#)

The Medical Association of Thailand

Address: 4th Floor, Royal Golden Jubilee Building, 2 Soi Soonvijai, New Petchburi Road, Bangkok 10310, Thailand

Telephone: 0-2716-6102, 0-2716-6962 press 0 Fax: 0-2314-6305

E-mail: jmedassocthai@yahoo.com, math@loxinfo.co.th 