

“No Neurologist, No Problem”- Role of telemedicine and early thrombolysis in a District Hospital without neurologist in Managing Patients with Acute Stroke

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No 240

INTRODUCTION

In stroke care, **time is brain**. A patient at a district hospital in Rembau, Negeri Sembilan, received delayed thrombolysis (2 hour) from arrival and discharged with mRS score of 2. We propose telemedicine as a bridge to seal the gap and reduce time delay as the closes tertiary center is 30 mins (30 km) away.

CASE DESCRIPTION

A patient with NIHSS 4 and ASPECTS 10 was deemed eligible for thrombolysis. Teleconsultation via WhatsApp video with the tertiary stroke team enabled rapid decision-making. Although thrombolysis was administered at the tertiary hospital, the patient was discharged with mRS 2, highlighting transport delays and prompting the development of a district stroke workflow.

DISCUSSION

To streamline acute stroke care and prevent delays, we implemented a district-level stroke workflow. Upon identification, patients undergo urgent CT brain imaging, with NIHSS assessed by the Emergency Physician and ASPECTS scored by the in-house radiologist. The in-house physician then initiates teleconsultation with the neuromedical specialist via WhatsApp to facilitate rapid thrombolysis decision-making. This approach enables treatment initiation within 60 minutes, avoiding the 30-minute transfer delay to the nearest tertiary center, ensuring timely thrombolysis, minimizes unnecessary transfers and optimizes use of staff and ambulance resources.

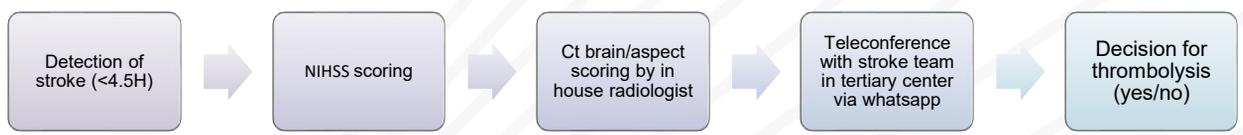


Figure 2 : Efficient Stroke Management Pathway — From First Signs to Thrombolysis in Less Than 60 Minutes

CONCLUSION

This case underscores how telemedicine bridges the expertise gap between resource-limited district hospitals and tertiary centers.

REFERENCES

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Figure 1: Live Teleconsultation (WHATSAPP VIDEO) between physician and stroke team

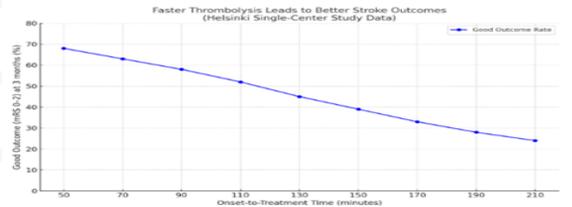


Figure 2 : Stroke Outcomes Transformed: The Helsinki Study Demonstrates How Speed Can Make All the Difference

