

Reducing Unnecessary IV Tramadol Infusions in Emergency Department (ED)

What is Stupid?
 Why is it Stupid?

Intravenous (IV) tramadol infusions are being unnecessarily overused compared to IV bolus administration for patients requiring IV tramadol in the ED. This disproportionate and often unwarranted use of infusions has led to several concerning consequences:

- Nurses **spend more time on drug administration**
- Cost of consumables (**without clear clinical benefit**) incurred by department **increased**
- Generates **unnecessary medical/ plastic waste**

The unnecessary use of IV tramadol infusions represents a systemic inefficiency and has broader implications for sustainability and cost-effectiveness in healthcare delivery.

What was Implemented?

Empowering Staff and Optimising IV Tramadol Administration from Infusion to Bolus Method to Enable Efficient and Sustainable Care

Before

- Physician Resource Misallocation and Under-utilisation of Nursing Expertise: IV Bolus drugs are administered by ED doctors
- Nurses spend approximately 12 mins on every patient who require IV Tramadol Infusion

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Now

- Corrected misunderstandings about perceived benefits and efficacy of Tramadol Infusions + EMR modification → Encourage prescription of Bolus IV Tramadol instead of Infusion.
- Nurse Empowerment in Bolus IV Tramadol Administration → Bolus IV Tramadol are now administered by ED Nurses instead of Doctors

Impact

- Nurses spend less time administering medication: **~1,223 minutes monthly** (~16% reduction) based on 12 mins per tramadol IV infusion and 5 mins per tramadol IV bolus
- Cost Savings: \$3,172 monthly** (~\$38,000 per year) based on estimated \$4.48 cost savings per IV Tramadol infusion replaced with bolus
- High Scalability: This can be scaled for usage for ANY institution or department prescribing IV Tramadol for patients. Team is exploring the reduction of unnecessary IV infusion for other commonly prescribed medications e.g.: IV paracetamol to optimise medication management within ED

#1061 NTFGH Emergency Medicine

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L to R : Ng Kai Xin, Tan Yen Yen, SSN Lee Xiao Yun, ANC Jessica Lee, Dr Goh Shaojie

NUHS Get Rid of “Stupid” Stuff Success Story

First in NUHS: Revolutionising Organisational Documentation through AI integration and Transformative Digital Excellence

What is Stupid?
Why is it Stupid?

No standardised, scalable method for producing consistent, high-quality minutes efficiently.

1. Manual, fragmented workflow

- Transcription from recording → Shortlisting key notes → Drafting → Checking tenses and paragraph structure

2. High cognitive load

- Requires constant interpretation, structuring and rewriting

3. Time-intensive

- Up to 8 hours per meeting

4. Inconsistent Quality

- Variability across writers, formats, & meeting types

What was Implemented?



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Integrated
Tools:

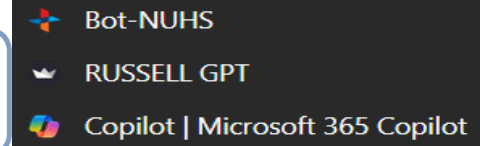


Prompt Engineering Framework

Minutes Writing
(Committee Meeting)
Download prompt for
generating formal meeting
minutes for committee
meetings.

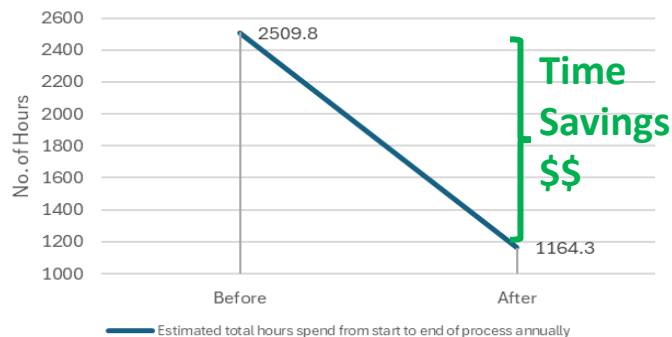
Minutes Writing
(General)
Download prompt for
generating standard
meeting minutes for
meetings.

Minutes Writing
(Point Form)
Download prompt for
generating meeting notes in
point forms with actionable
items.

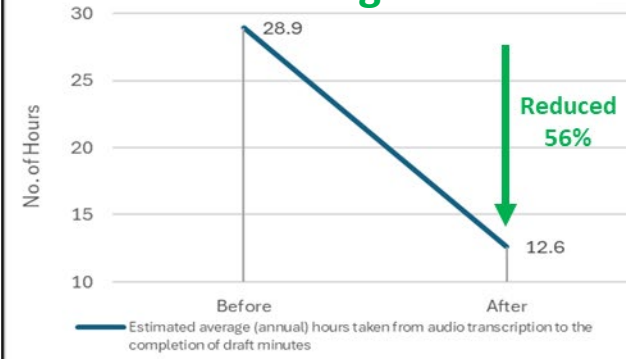


**Structured, Reusable prompts tailored to:
Committee Meetings, General Meetings and Short Notes Meeting**

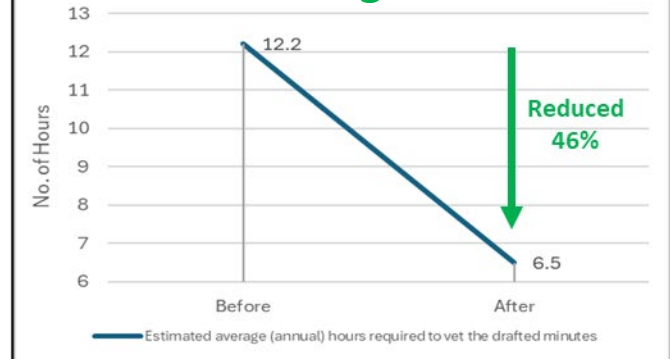
Process Efficiency



Drafting Time



Vetting Time



Impact

- **>53%* of time savings annually** (equivalent to **major manpower cost avoidance**) – significant reduction across all process stages
- Standardised, Consistent, High-quality and Accurate outputs
- Reduced dependency on individual skill levels
- **Faster** turnaround resulting in **improved and more timely decision-making.**
- **Scaling success across NUHS through various avenues:**
 - Developing self-service learning model – expending JHC homemade training material access on AI awareness onto eLearn for cross-institutional learning
 - Replication strategy – Collaboration through G.R.O.S.S. copycat campaign
 - Embedded system integration – Collaboration with Bot-NUHS to embed specifically crafted prompts onto Bot-NUHS for easier access

* $[(2509.8 - 1164.3) / 2509.8] \times 100\% = 53.609\%$

#1063 NTFGH DTT

Revolutionising Organisational Documentation through AI integration and Transformative Digital Excellence

Created Structured, Reusable prompts tailored to: Committee Meetings, General Meetings and Short Notes Meeting

- >53%* of time savings annually (equivalent to major manpower cost avoidance) – significant reduction across all process stages
- Standardised, Consistent, High-quality and Accurate outputs leading to Reduced Dependency on individual skill levels



NTFGH Digital Think Tank Team

L to R : Joshua Goh, ACOO Jan Lim, Tan Yi Jia, Kristeen Peh, Mildren Chui, Jonathan Yeo, Jeremy Tan, Kelvin Lew, and Ng Yan Jun

NUHS Get Rid of “Stupid” Stuff Success Story