

Improving Venous Thromboembolism prophylaxis – the clot thickens

A partnered initiative

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VTE BY THE NUMBERS

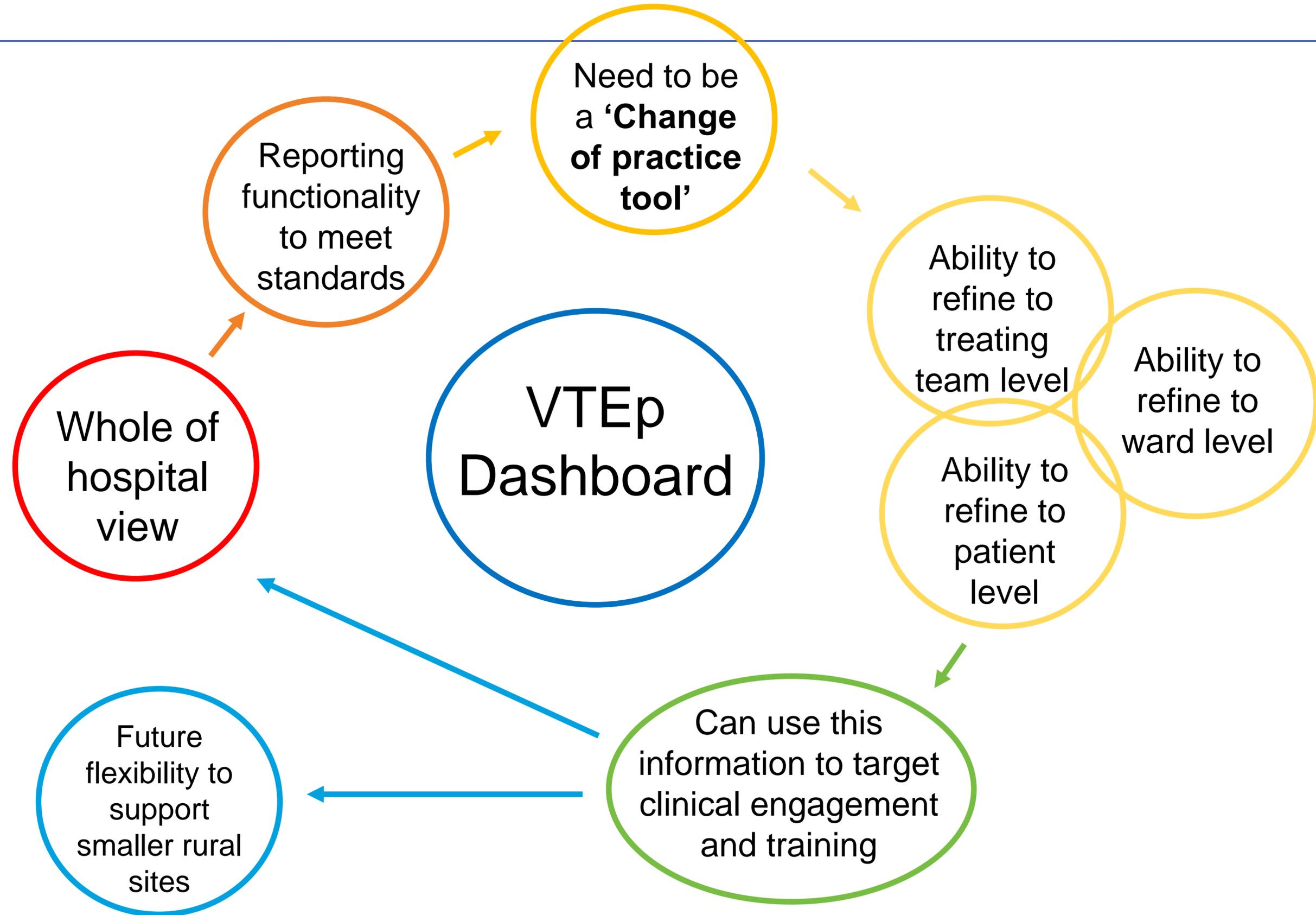
Most common form of preventable cause of in-hospital mortality (accounting for 7% of hospitalised deaths in Australia)

Cost estimated at \$1.72 billion p.a. for Australia

- 5000 deaths per annum in Australia and 30,000 hospitalisations
- PE – most common cause of maternal death
- 2nd leading cause of death in cancer patients

1 of the 19 Clinical Care standards
mandated by ACSQH

Data still suggests that a significant
proportion of patients at risk of VTE
do not receive care as recommended
in current guidelines.²⁻⁴



- **Development**

- Pharmacy, Medical, Nursing, ieMR, Executive
- Ensure it met needs

- **Validation**

- 6 months (CE + 2 x Residents + Medical Lead)
- Ward based education – clinical team based discussions

- **Situating the tool in practice (induction phase)**

- 6 months (CE + 2 x Residents)
- Calling treating teams Ward based education – clinical team based discussions

- **Situating the tool in practice (maintenance phase)**

- Stewarding to ward/clinician level
- Pharmacy high risk stewarding – twice weekly email
- Whole of year medical education – encouraging twice weekly check of team

- **Medical education**

regarding VTEp (6th year, Interns, RMO training)

Initial: Strong medical lead and engagement, pharmacy lead and support from 2x Resident pharmacists, Nursing engagement, ieMR technical support

Ongoing: 1 hr per day of high risk 'steward' pharmacist, maintain medical leadership for engagement with upcoming problematic areas.

VTE dashboard in practice

VTE Prophylaxis Orders - Current Patients (Updated: 10 Oct. 2023 8:40)

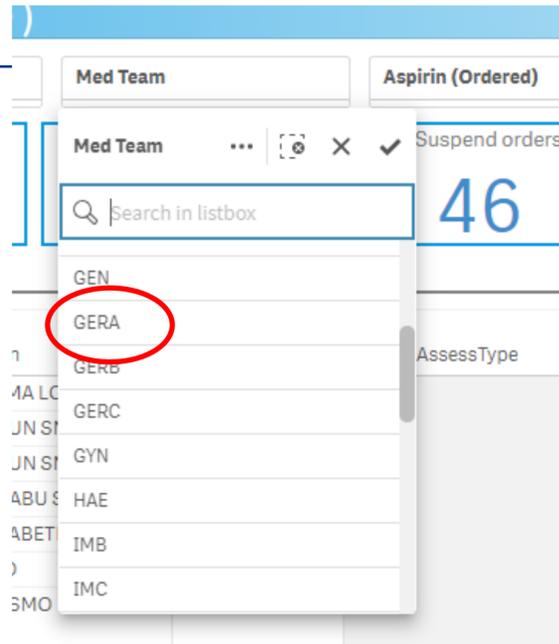
Has VTE Order No Mech / Pharm Order Ward Order Catalog Med Team Aspirin (Ordered)

# Patients 375	# Has any VTE order 314 84%	# Pharm or Pharm WH order 304 81%	# Mech or Mech WH order 72 19%	# Suspend orders 24	# Antiemb. Dev 0	# No VTE order 61 16%	#VTE PForm 3
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Number of patients: 375

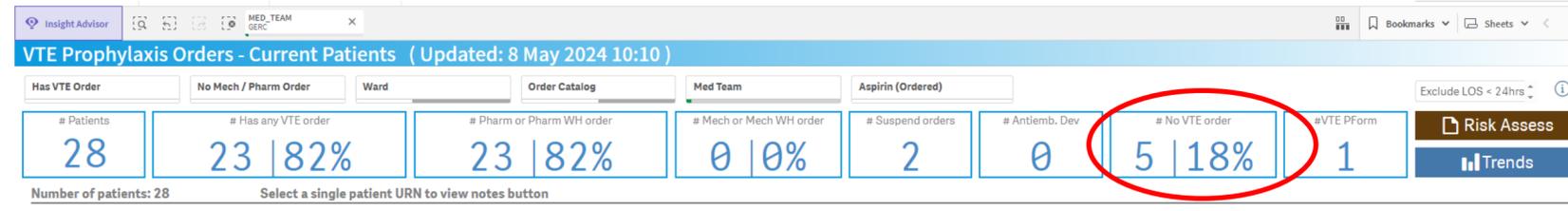
Select a single patient URN to view notes button

URN	Patient Name	Age	LOS (d hh:mm)	Ward	Bed	Team	Attending Clinician	Weight kg (Admit/Current)	Pharm Orders	Last aspirin dose	Pharm Withhold /suspended	Mech Orders	#VTE Alerts last 24hrs
		77	01 22:26	AB G TMW4	30	IMG		120 / 120	enoxaparin (100 mg) @ 10/10/2...	100 mg @ 10/10/23 08:18	-	-	8
		78	03 13:04	AB G TMW4	35	IMG		103.5 / 105	rivaroxaban (20 mg) @ 10/10/2...	-	-	-	0
		35	03 16:00	AB G TMW4	22	GAS		157 / 157	enoxaparin (40 mg) @ 7/10/23 ...	-	-	-	0
		53	03 17:18	AB G TMW4	21	IMD		63.68 / 63.68	enoxaparin (40 mg) @ 9/10/23 ...	-	-	-	0
		54	03 18:04	AB G TMW4	27	IMG		155.9 / 149.8	apixaban (2.5 mg) @ 10/10/23 ...	-	-	-	0
		57	03 21:37	AB G TMW4	36	IMG		89 / 89	enoxaparin (40 mg) @ 8/10/23 ...	-	-	-	0
		60	04 00:45	AB G TMW4	32	IMG		73 / 76.3	rivaroxaban (20 mg) @ 10/10/2...	-	rivaroxaban	Below the Knee...	0
		53	04 18:58	AB G TMW4	29	VAS		93.3 / 93.3	rivaroxaban (2.5 mg) @ 9/10/23...	100 mg @ 9/10/23 09:41	-	-	0
		67	04 20:14	AB G TMW4	26	IMG		87.0 / 87	enoxaparin (40 mg) @ 9/10/23 ...	-	-	-	0
		74	05 05:39	AB G TMW4	24	IMG		75 / 79.6	rivaroxaban (20 mg) @ 9/10/23 ... enoxaparin (40 mg) @ 9/10/23 ...	-	rivaroxaban	-	0
		86	08 05:08	AB G TMW4	16	IMD		97.1 / 95.4	enoxaparin (90 mg) @ 9/10/23 ...	-	-	-	0
		94	12 22:52	AB G TMW4	02	GERB		63.1 / 64.9	enoxaparin (40 mg) @ 8/10/23 ...	-	-	-	0
		75	14 18:51	AB G TMW4	15	GERA		83.1 / 82.1	enoxaparin (40 mg) @ 5/10/23 ...	100 mg @ 5/10/23 08:35	-	-	0
		80	18 21:05	AB G TMW4	17	GERB		76.90 / 80.6	enoxaparin (120 mg) @ 9/10/23...	-	-	-	0
		58	21 22:34	AB G TMW4	20	IMB		85 / 85.9	enoxaparin (40 mg) @ 9/10/23 ...	-	-	-	0
		87	22 23:50	AB G TMW4	08	GERA		74.5 / 77.3	enoxaparin (20 mg) @ 9/10/23 ...	100 mg @ 10/10/23 08:26	-	Below the Knee...	0
		76	23 14:07	AB G TMW4	01	IMC		71.3 / 72.2	enoxaparin (40 mg) @ 9/10/23 ...	-	-	-	0
		85	26 20:01	AB G TMW4	10	GERA		67 / 66.2	enoxaparin (40 mg) @ 9/10/23 ...	100 mg @ 9/10/23 07:45	enoxaparin	-	0
		84	35 10:20	AB G TMW4	06	GERB		52 / 40.3	rivaroxaban (20 mg) @ 10/10/2... enoxaparin (50 mg) @ 6/10/23 ...	-	enoxaparin	-	0
		95	35 13:51	AB G TMW4	07	GERB		55.88 / 60.4	apixaban (2.5 mg) @ 10/10/23 ...	150 mg @ 19/9/23 08:30	-	-	0
		79	64 01:22	AB G TMW4	18	GERB		81.67 / 73.4	rivaroxaban (20 mg) @ 9/10/23 ...	-	-	Below the Knee... Below the Knee...	0
		95	113 12:02	AB G TMW4	11	NEM		61 / 60	apixaban (5 mg) @ 9/10/23 19:49	100 mg @ 26/6/23 08:47	-	Below the Knee...	0
		81	19 13:19	TRU G TMREH	41	REH		66.5 / 64.5	enoxaparin (40 mg) @ 9/10/23 ...	100 mg @ 10/10/23 08:06	-	Below the Knee...	0



- Choose your team

Intern / RMO education series where I trained them to do checks on their team prescribing



- Dashboard now shows how many patients don't have appropriate VTEp planned or withheld
- Click on this

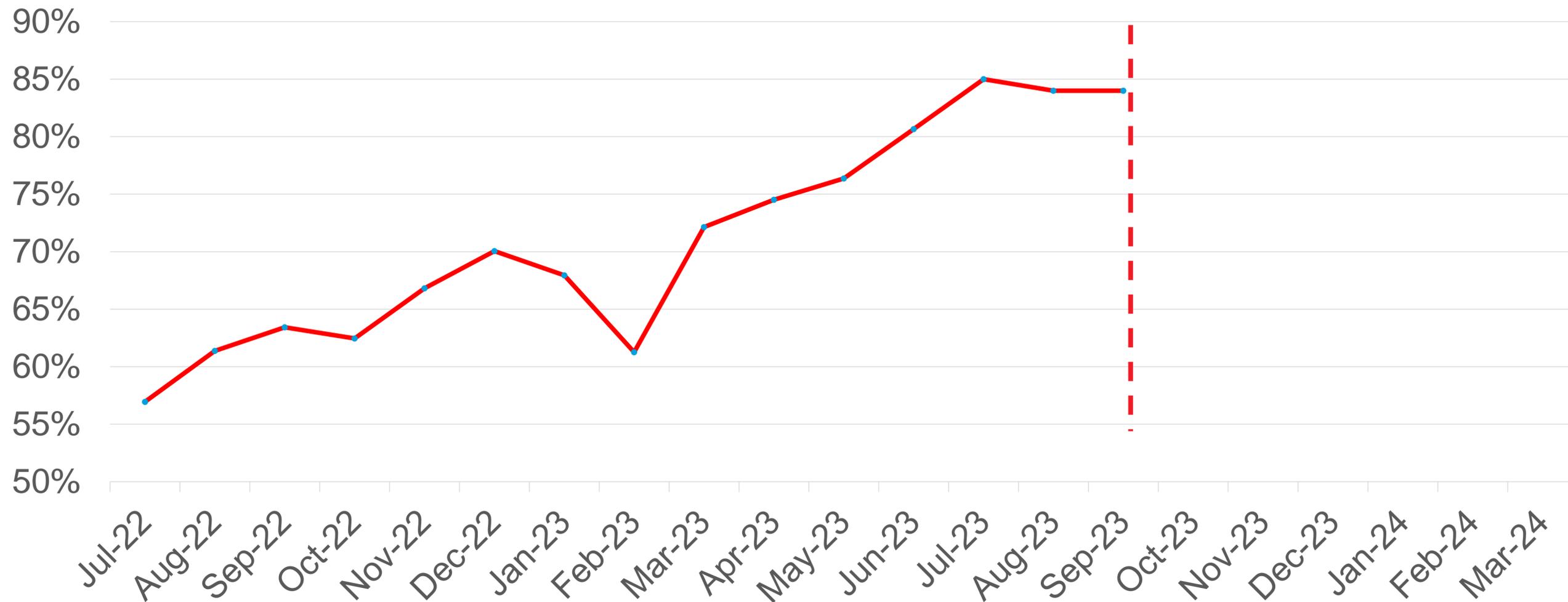


Number of patients: 5 Select a single patient URN to view notes button

URN	Patient Name	Age	LOS (d hh:mm)	Ward	Bed	Team	Attending Clinician	Weight kg (Admit/Current)	VTE P
[Redacted]	[Redacted]	76	57 00:59	WB G TMW5S	20	GERC	[Redacted]	63 / 58.8	-
[Redacted]	[Redacted]	78	22 15:56	WB G TMW5S	21	GERC	[Redacted]	57 / 56.4	-
[Redacted]	[Redacted]	84	15 01:18	AB G TMW4	03	GERC	[Redacted]	85.5 / 85.5	-
[Redacted]	[Redacted]	76	13 10:26	AB L1 TMIDW	12	GERC	[Redacted]	85.4 / 84	-
[Redacted]	[Redacted]	89	00 19:19	WB L1 TMAAU	14	GERC	[Redacted]	- / -	-

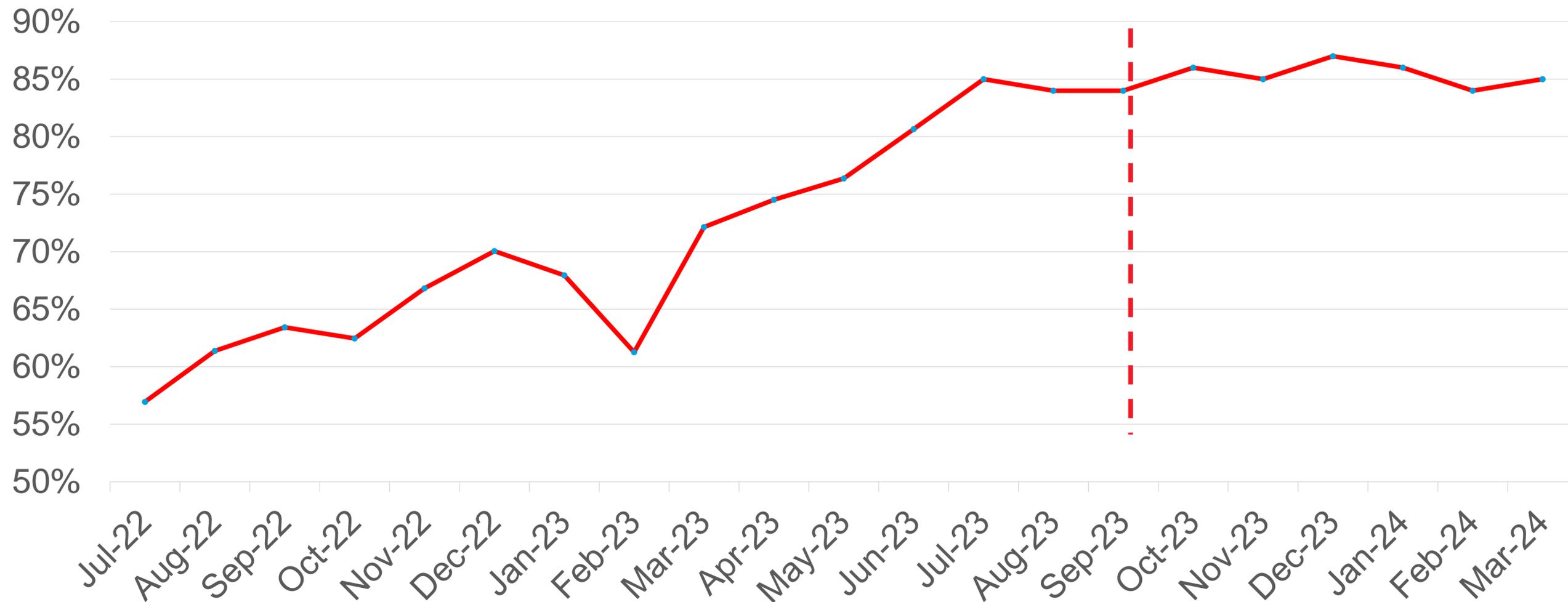
Interventions increased rates of prescribing VTE prophylaxis management across the hospital up from 57% up to 86% over a one-year-period.

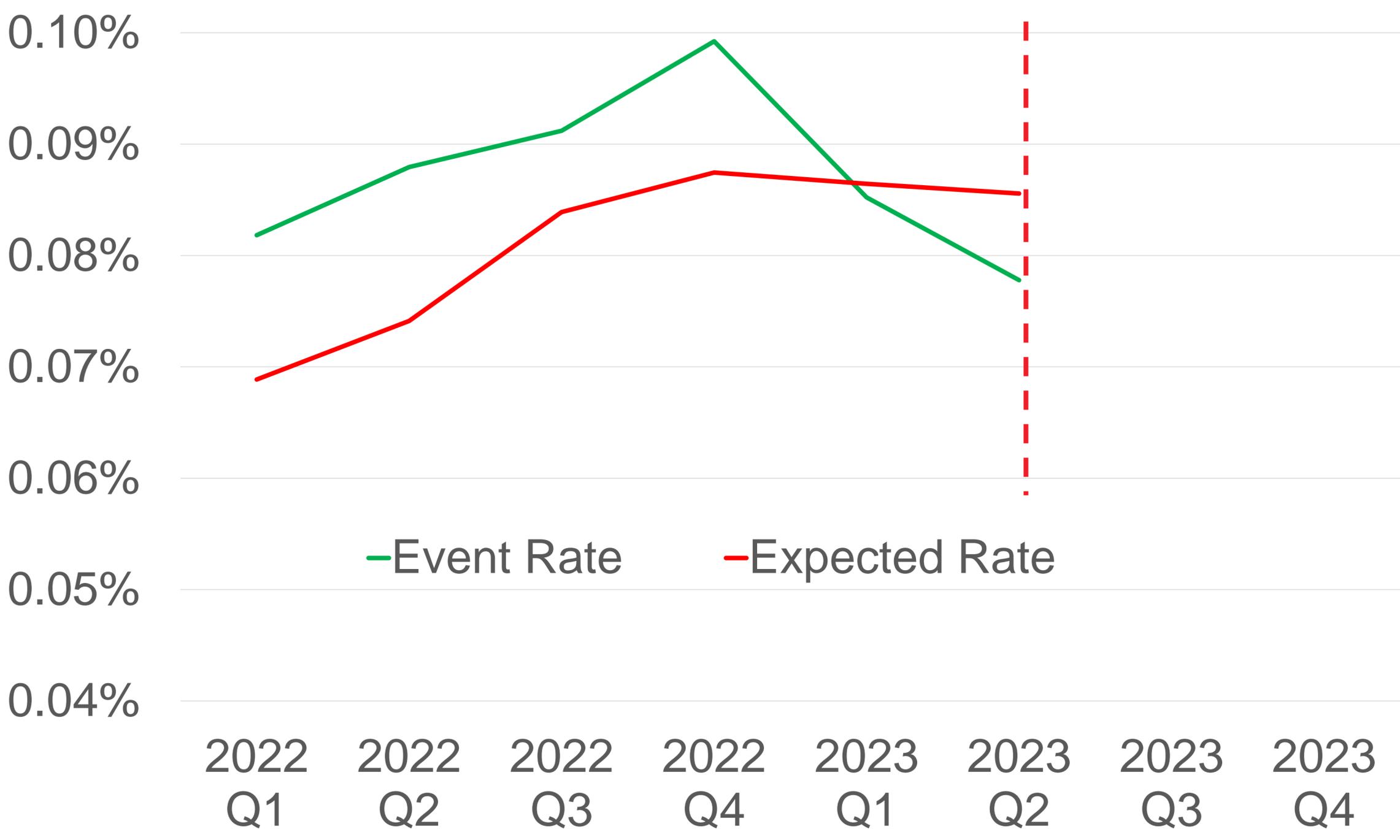
Percentage of patients with pharmacological or mechanical prophylaxis, either charted or documented as withheld



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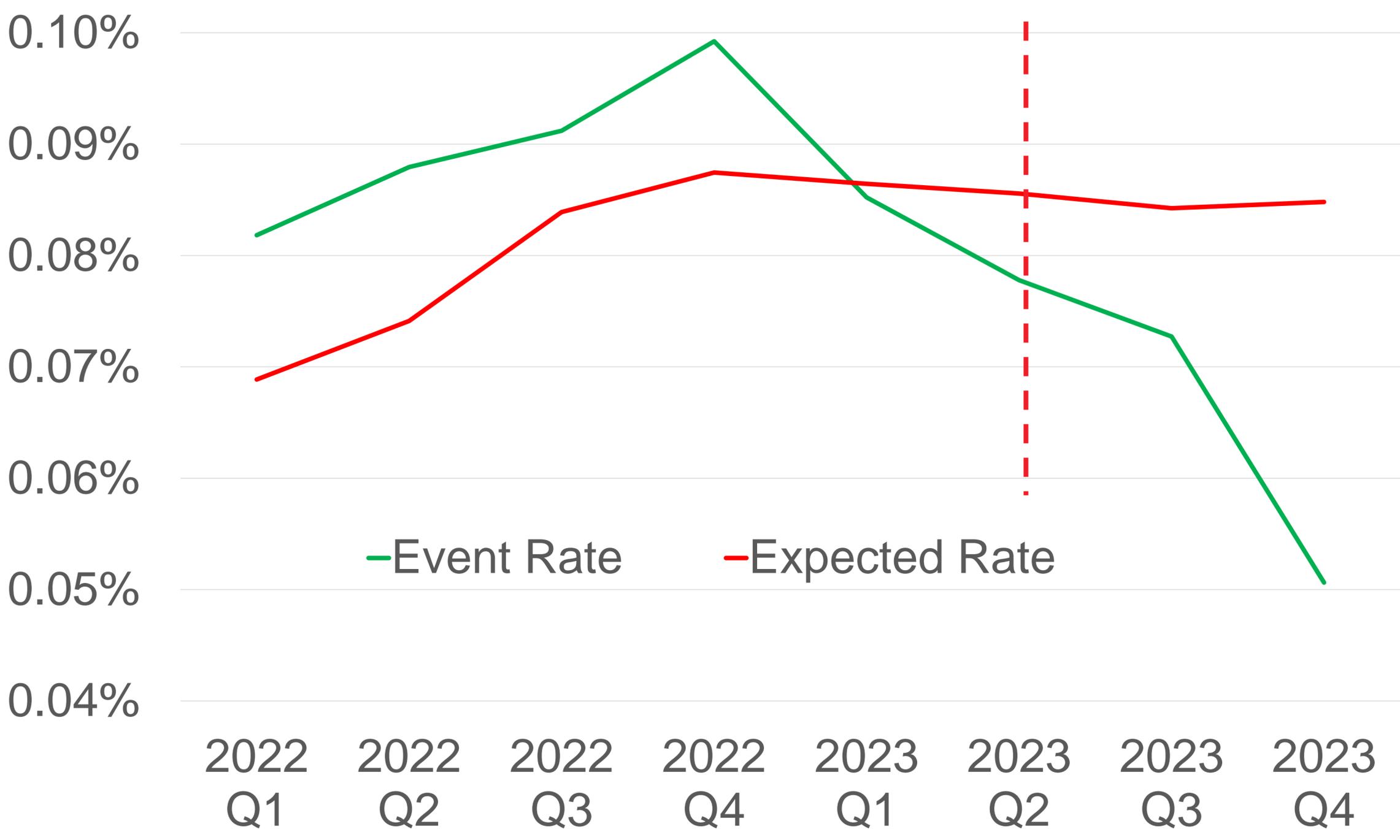
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Results

- The Townsville University Hospital acquired complication rates (HAC) decreased significantly over intervention period.
- We have dropped well below our expected event rate.



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FUTURE DIRECTIONS



Dr Stevie Perks
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Dashboard build for rural sites

- 2 sites completed
- 2 ready for go-live

Dashboard assistance for other sites

- Assisting CHHHS in dashboard build
- Free of charge for all

