Clinical Decision Support BPA for Sevoflurane

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MyMichigan Health System

41,621 Anesthesia Cases in 2024

Alma – 4,885 Cases

Alpena – 7,734 Cases

Clare – 2,609 Cases

Gladwin – 379 Cases

Midland – 19,299 Cases

West Branch – 3,169 Cases

Sault – 3,546 Cases

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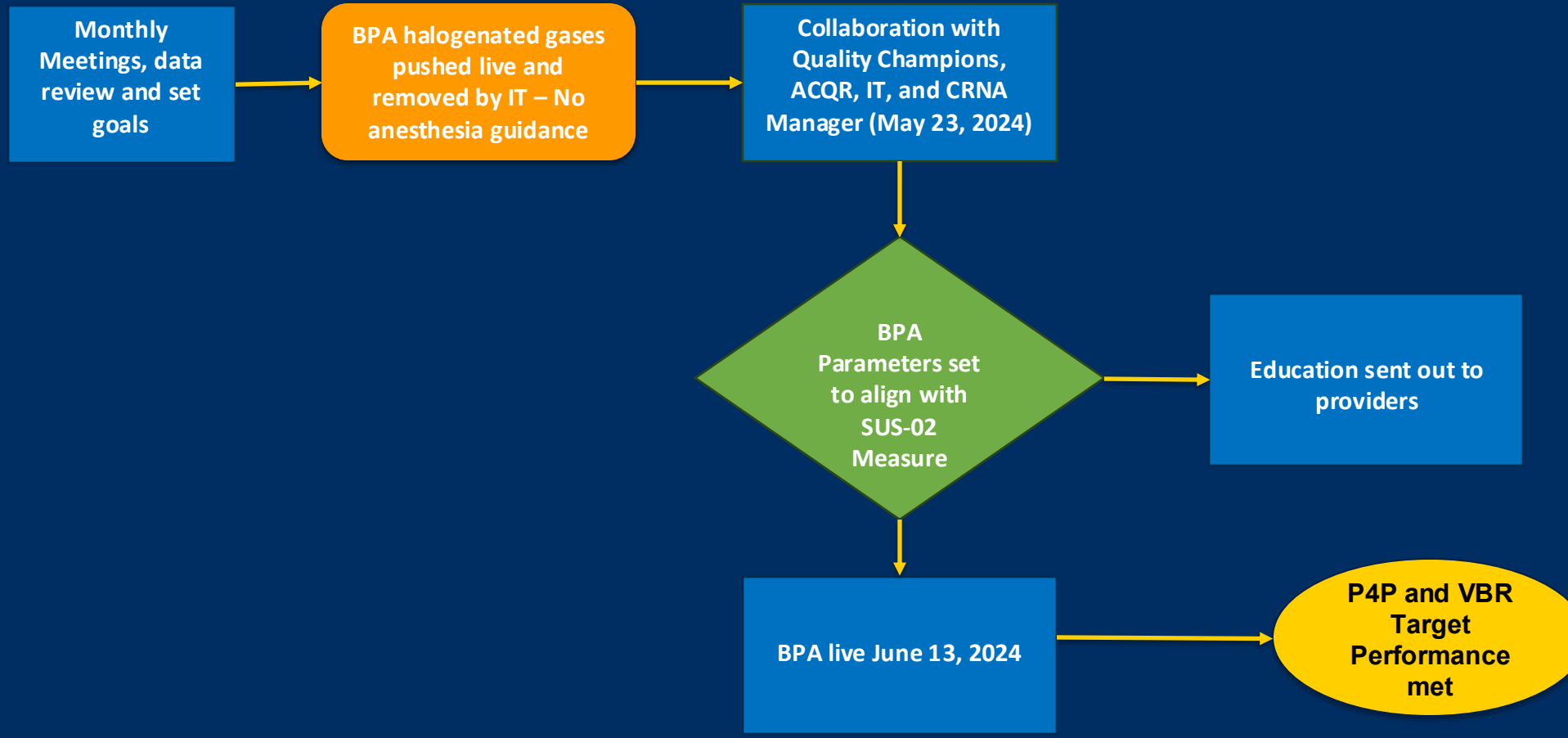

Monthly Meetings, data review and set goals
BPA halogenated gases pushed live and removed by IT – No anesthesia guidance
Collaboration with Quality Champions, ACQR, IT, and CRNA Manager (May 23, 2024)
BPA Parameters set to align with SUS-02 Measure
Education sent out to providers
BPA live June 13, 2024
P4P and VBR Target Performance met

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Pilonidal Cyst	Pollutants			Flows						Total Fresh Gas Flow (L/min)			Convert % agent to MLs of agent	Convert mLs/min to moles	Convert moles to mass	Convert mass to CO2eq	Total CO2/Included mi
Measure time period	Sevoflurane Insp%			Oxygen (L/min)			Air (L/min)										
1247 - Measure start: Intubation	3/7/2025 12:47	Sevoflurane Insp %	2.8	3/7/2025 12:47	Flows Oxygen (L/Min)	10					10		280	0.01147541	0.002295082	0.330491803	
1248	3/7/2025 12:48	Sevoflurane Insp %	2.8	3/7/2025 12:48	Flows Oxygen (L/Min)	10					10		280	0.01147541	0.002295082	0.330491803	
1249	3/7/2025 12:49	Sevoflurane Insp %	2.8	3/7/2025 12:49	Flows Oxygen (L/Min)	10					10		280	0.01147541	0.002295082	0.330491803	
1250	3/7/2025 12:50	Sevoflurane Insp %	2.7	3/7/2025 12:50	Flows Oxygen (L/Min)	1.1	3/7/2025 12:50	Flows Air (L/min)	0.85		1.95		52.65	0.002157787	0.000431557	0.062144262	
1251	3/7/2025 12:51	Sevoflurane Insp %	2.4	3/7/2025 12:51	Flows Oxygen (L/Min)	1.1	3/7/2025 12:51	Flows Air (L/min)	0.85		1.95		46.8	0.001918033	0.000383607	0.055239344	
1252	3/7/2025 12:52	Sevoflurane Insp %	2.6	3/7/2025 12:52	Flows Oxygen (L/Min)	1.1	3/7/2025 12:52	Flows Air (L/min)	0.85		1.95		50.7	0.002077869	0.000415574	0.059842623	
1253	3/7/2025 12:53	Sevoflurane Insp %	2.6	3/7/2025 12:53	Flows Oxygen (L/Min)	1.1	3/7/2025 12:53	Flows Air (L/min)	0.85		1.95		50.7	0.002077869	0.000415574	0.059842623	
1254	3/7/2025 12:54	Sevoflurane Insp %	2.6	3/7/2025 12:54	Flows Oxygen (L/Min)	1.1	3/7/2025 12:54	Flows Air (L/min)	0.85		1.95		50.7	0.002077869	0.000415574	0.059842623	
1255	3/7/2025 12:55	Sevoflurane Insp %	2.7	3/7/2025 12:55	Flows Oxygen (L/Min)	1.1	3/7/2025 12:55	Flows Air (L/min)	0.85		1.95		52.65	0.002157787	0.000431557	0.062144262	
1256	3/7/2025 12:56	Sevoflurane Insp %	2.8	3/7/2025 12:56	Flows Oxygen (L/Min)	1.1	3/7/2025 12:56	Flows Air (L/min)	0.85		1.95		54.6	0.002237705	0.000447541	0.064445902	
1257	3/7/2025 12:57	Sevoflurane Insp %	2.9	3/7/2025 12:57	Flows Oxygen (L/Min)	1.1	3/7/2025 12:57	Flows Air (L/min)	0.85		1.95		56.55	0.002317623	0.000463525	0.066747541	
1258	3/7/2025 12:58	Sevoflurane Insp %	2.9	3/7/2025 12:58	Flows Oxygen (L/Min)	1.1	3/7/2025 12:58	Flows Air (L/min)	0.85		1.95		56.55	0.002317623	0.000463525	0.066747541	
1259	3/7/2025 12:59	Sevoflurane Insp %	2.9	3/7/2025 12:59	Flows Oxygen (L/Min)	1.1	3/7/2025 12:59	Flows Air (L/min)	0.85		1.95		56.55	0.002317623	0.000463525	0.066747541	
1300	3/7/2025 13:00	Sevoflurane Insp %	3	3/7/2025 13:00	Flows Oxygen (L/Min)	1.1	3/7/2025 13:00	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1301	3/7/2025 13:01	Sevoflurane Insp %	3	3/7/2025 13:01	Flows Oxygen (L/Min)	1.1	3/7/2025 13:01	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1302	3/7/2025 13:02	Sevoflurane Insp %	3	3/7/2025 13:02	Flows Oxygen (L/Min)	1.1	3/7/2025 13:02	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1303	3/7/2025 13:03	Sevoflurane Insp %	3	3/7/2025 13:03	Flows Oxygen (L/Min)	1.1	3/7/2025 13:03	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1304	3/7/2025 13:04	Sevoflurane Insp %	3	3/7/2025 13:04	Flows Oxygen (L/Min)	1.1	3/7/2025 13:04	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1305	3/7/2025 13:05	Sevoflurane Insp %	3	3/7/2025 13:05	Flows Oxygen (L/Min)	1.1	3/7/2025 13:05	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1306	3/7/2025 13:06	Sevoflurane Insp %	3	3/7/2025 13:06	Flows Oxygen (L/Min)	1.1	3/7/2025 13:06	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	
1307	3/7/2025 13:07	Sevoflurane Insp %	3	3/7/2025 13:07	Flows Oxygen (L/Min)	1.1	3/7/2025 13:07	Flows Air (L/min)	0.85		1.95		58.5	0.002397541	0.000479508	0.06904918	

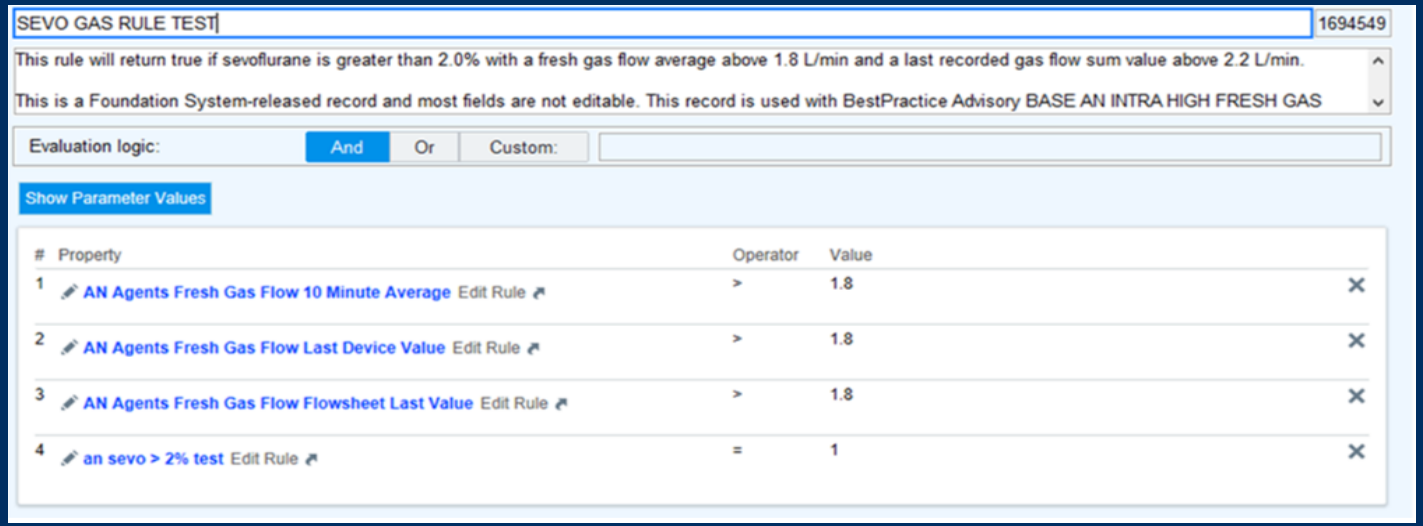
SUS-02 Goals

2024 P4P 45% (Measurement Period 01/01/24 – 12/31/24)

2025 P4P 55% (Measurement Period 01/01/25 – 12/31/25)

Parameters

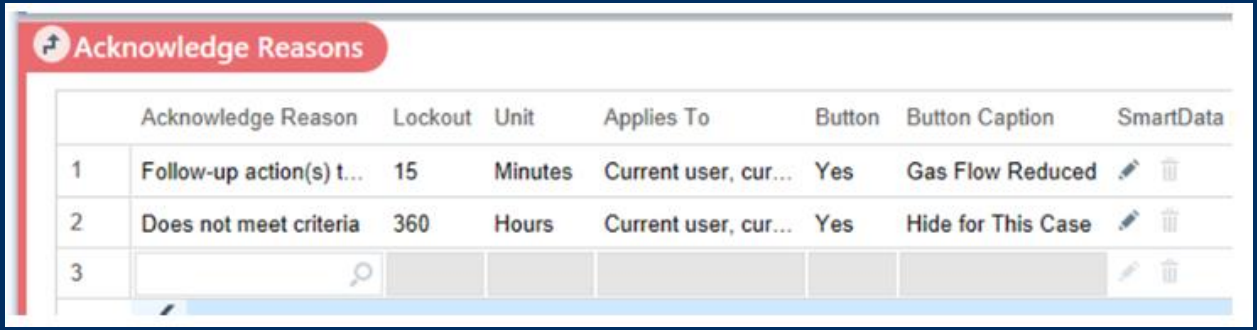
BPA triggers after induction and will prompt if Sevoflurane is greater than 2% and FGF is greater than 1.8L/min over a 10-minute period average



Acknowledge Reasons

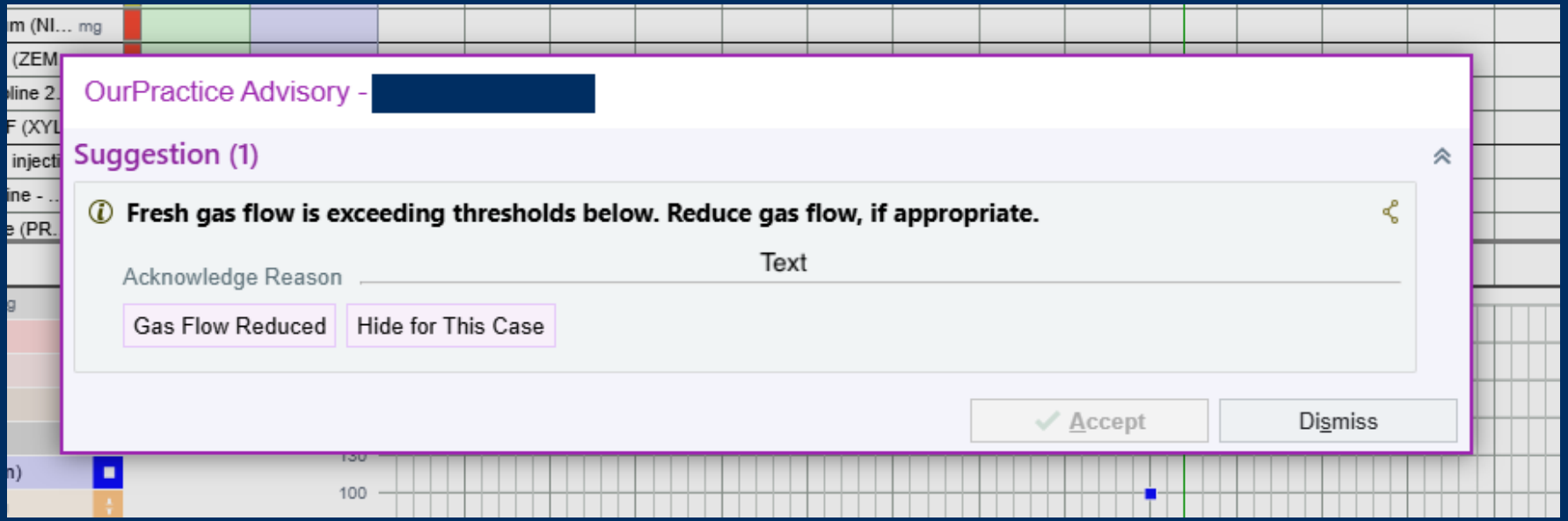
- Provider selects Follow-up actions taken – BPA repeats after lockout of 15 minutes and will fire again if rate is high

- Provider selects Does not meet criteria – BPA lock out for 360 hours, only for current user and current encounter



	Acknowledge Reason	Lockout	Unit	Applies To	Button	Button Caption	SmartData
1	Follow-up action(s) t...	15	Minutes	Current user, cur...	Yes	Gas Flow Reduced	
2	Does not meet criteria	360	Hours	Current user, cur...	Yes	Hide for This Case	
3							

BPA

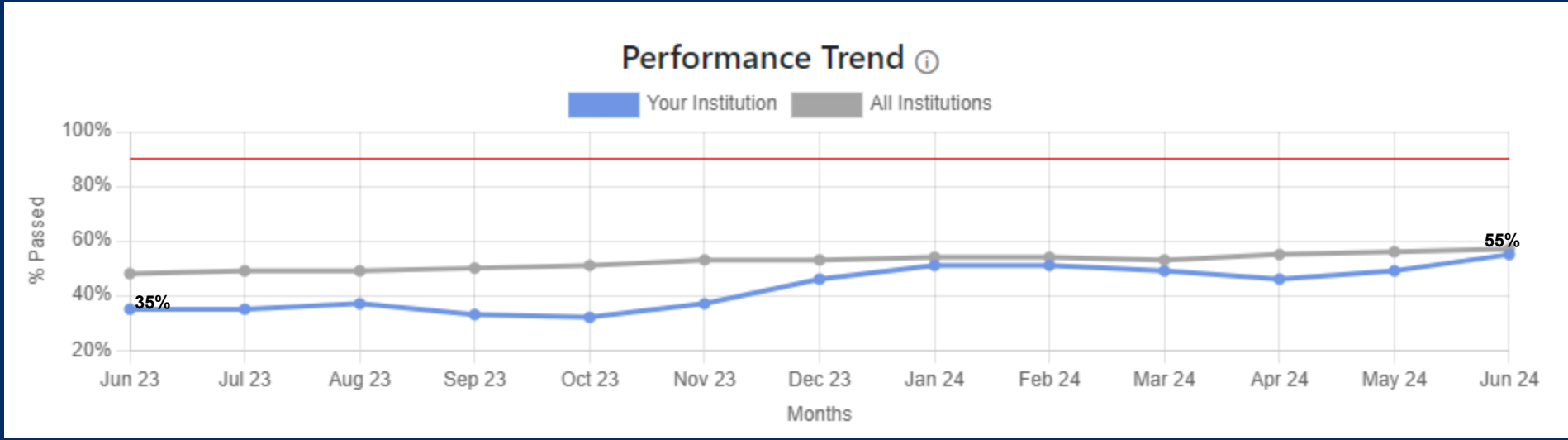

OurPractice Advisory -
Suggestion (1)
Fresh gas flow is exceeding thresholds below. Reduce gas flow, if appropriate.
Acknowledge Reason
Text
Gas Flow Reduced
Hide for This Case
Accept
Dismiss
100

SUS-02 Performance

Entity	2024 P4P Goal	Composite January- May 2024 Before BPA	Composite June – December 2024 After BPA	Post-BPA Improvement	Final Score
System	NA	49%	56%	7%	56%
Alma	45%	37%	65%	28%	50%
Alpena	45%	54%	73%	19%	65%
Clare		49%	56%	7%	53%
Midland	45%	50%	60%	10%	56%
West Branch		76%	80%	4%	73%

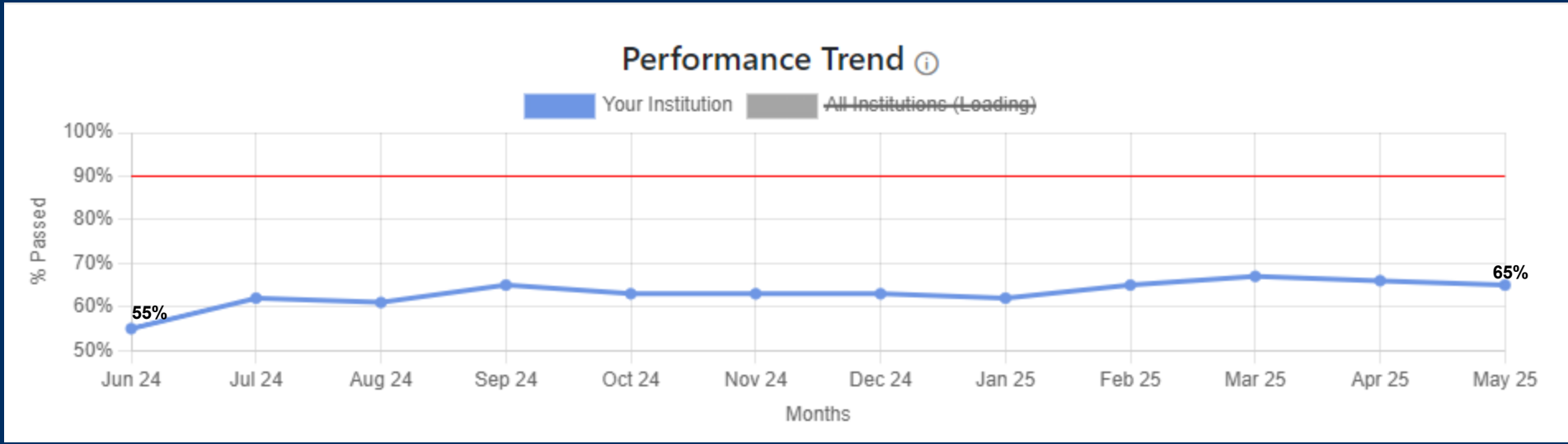
MyMichigan Health System SUS-02

June 2023 – June 2024 (Fiscal Year)

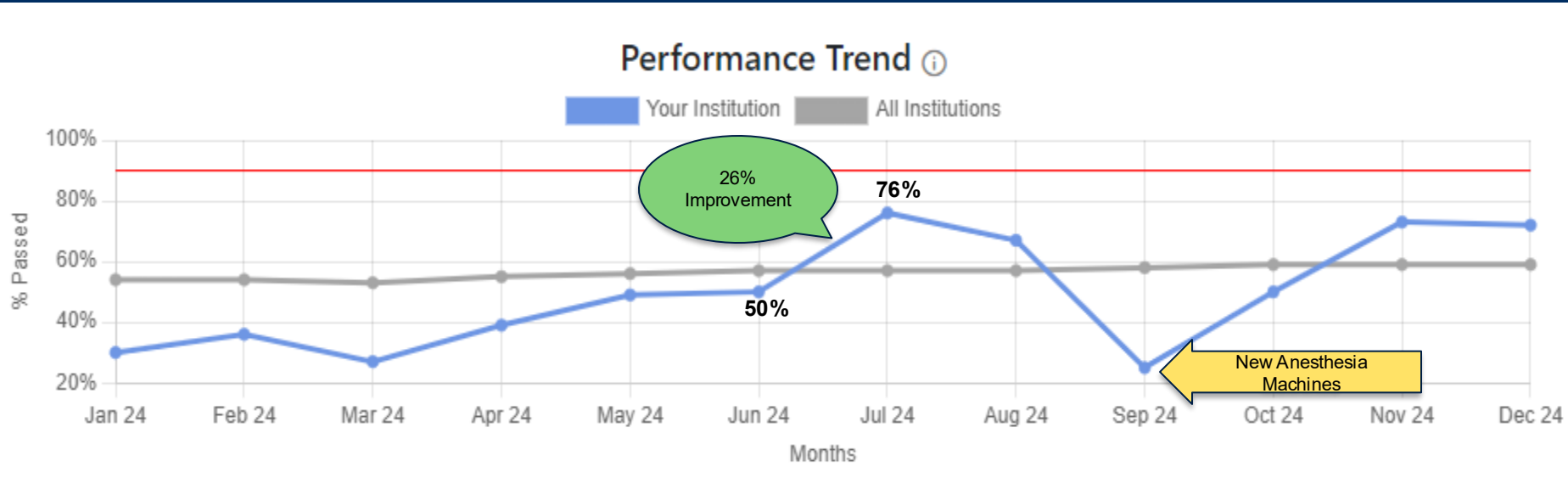


MyMichigan Health System SUS-02

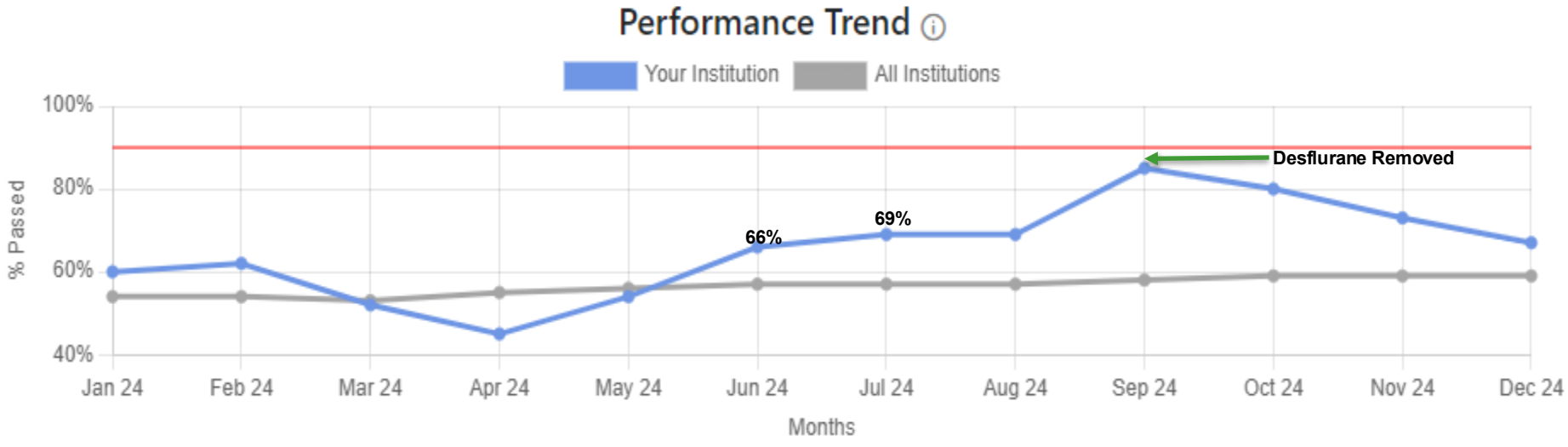
June 2024 – May 2025 (Fiscal Year)



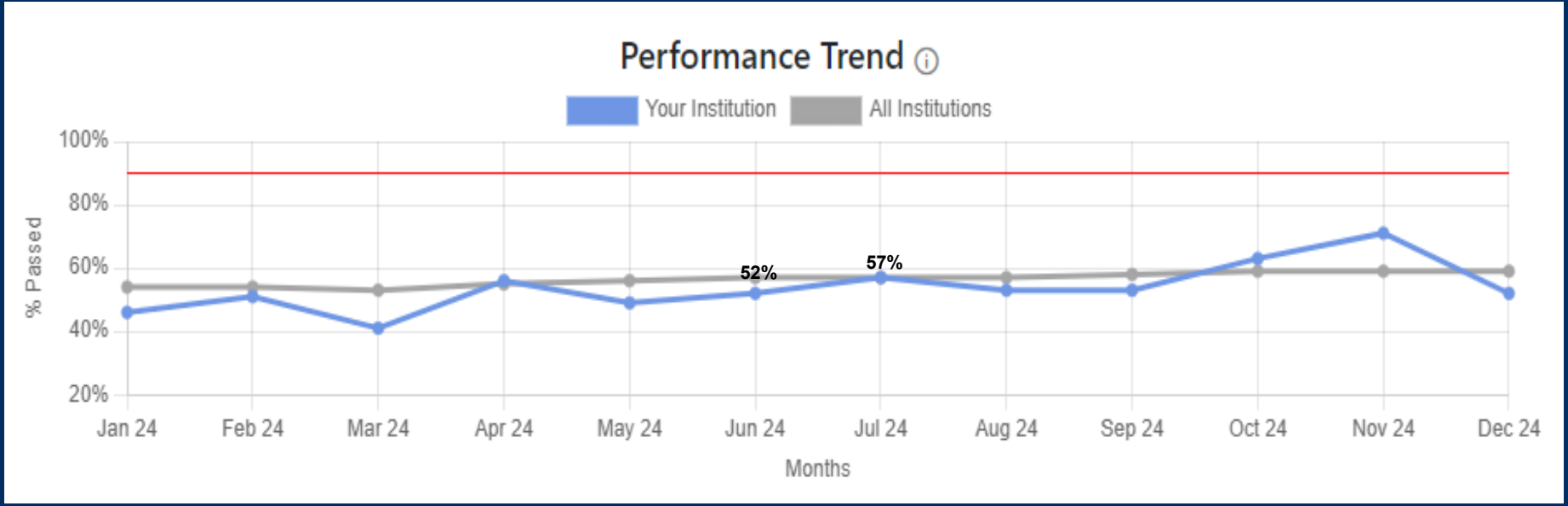
Alma SUS-02
January 2024 – December 2024



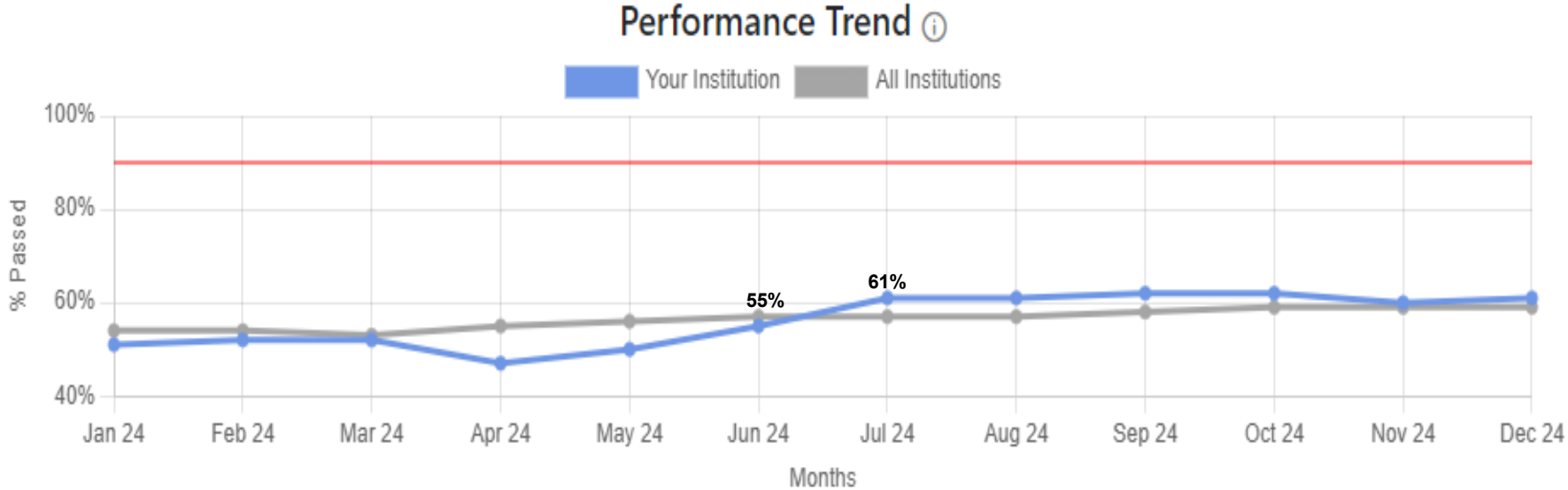
Alpena SUS-02
January 2024 – December 2024



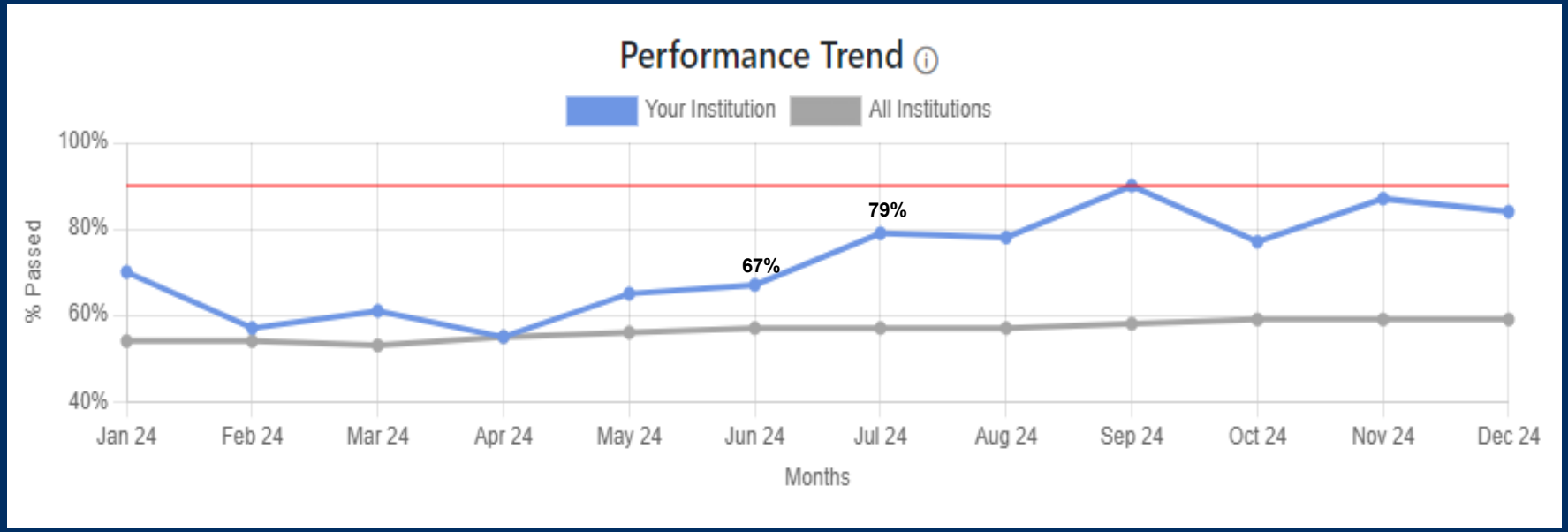
Clare SUS-02
January 2024 – December 2024



Midland SUS-02
January 2024 – December 2024



West Branch SUS-02
January 2024 – December 2024



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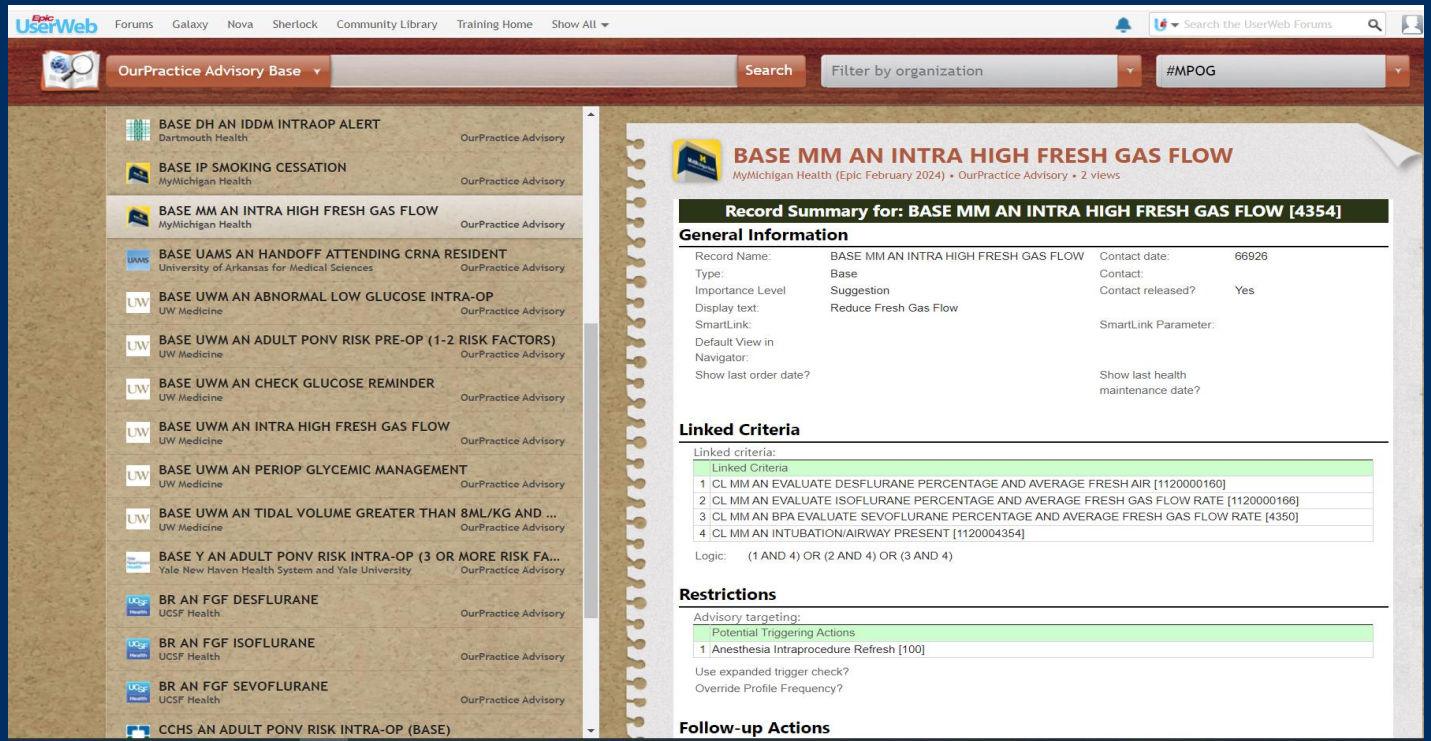

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Future Direction

Near term- Removing case duration lock-out and decrease FGF goal <1.4L/min, and change of BPA lockout from 15 min to 10 min

Long term- Decision support real-time feedback on reduced Greenhouse gas usage performance

Traffic light decision support tool - Display a Red-Yellow-Green based on ongoing moving average

Provide immediate feedback of CO_2 equivalent calculation