

## Anesthesia Highlights Features

This document explains the sections and information that displays in Anesthesia Highlights.

**No Data found** - when there is no data found for various headers in Anesthesia Highlights.

The screenshot shows a sidebar menu on the left with the following items: Clinical Highlights, Documents (0), **Anesthesia Highlights** (highlighted), PowerForm Links, Birth/Pregnancy Hx, Chronic Problems/Family/Social Hx, Problem List/Dx ..., Vital, Signs/Measurements ..., Allergies ..., and a partially visible 'Fluorid' item. The main content area is titled 'Anesthesia Highlights' and contains the following sections:

- Procedure(s) (+/- 1 day)**: No Upcoming Procedures
- Nurse Communication to Anesthesiologists (last 1 week)**: No Nurse Communication
- Pregnancy Test**: No Pregnancy test
- Prior Anesthetics (last 5)**: No Prior Anesthetics
- Anesthesia Problems (last 3 + 1st instance)**: No Anesthesia Problems

**Procedures (+/- 1 day):** Displays any scheduled procedures from yesterday through tomorrow (+/- 1 day).

**Nurse communication to Anesthesiologists (last 1 week):** Displays text from the nurse pre-op assessments entered within the last week.

**Message Sender:** Includes date/time name (title) of user entering data. Will also include any reported prior Anesthesia specific problems or family reported Anesthesia problems documented by nursing.

The screenshot shows a detailed view of the 'Anesthesia Highlights' section. It features a table for 'Procedure(s) (+/- 1 day)' with the following data:

Procedure	Scheduled start time	OR Room	Case Number	Surgeon
EMCO decannulation	06/28/19 07:59	OR1-M	MPLS-2019-1624	MacIver MD, Robroy H
Transvenous Pacemaker insertion then to MRI @ ANW	06/26/19 07:30	CV Hybrid	MPLS-2019-1638	Moga MD, Francis X
Insertion Broviac Catherter	06/27/19 10:00	CV Hybrid	MPLS-2019-1639	Schmeling MD, David J
DL Bronch	06/27/19 10:00	CV Hybrid	MPLS-2019-1639	Lander MD, Timothy
MRI at ANW CV Hospital	06/26/19 09:30	CV NORA	MPLS-2019-1640	ZZZSurginet , Anesthesiologist

Below the table, there is a section for 'Nurse Communication to Anesthesiologists (last 1 week)' with the following text: '06/26/2019 14:10 Jen Miller: Parents concerned about difficult intubation and would like to discuss options.'

**Sugammadex Alert** Only displays if patient has this alert. If Sugammadex administered (not just ordered) within last 24 hours, this alert will display in Anesthesia Highlights.

The screenshot shows the 'Anesthesia Highlights' section with the following content:

- Procedure(s) (+/- 1 day)**: No Upcoming Procedures
- Nurse Communication to Anesthesiologists (last 1 week)**: No Nurse Communication
- Sugammadex Alert** (highlighted in yellow): Patient received Sugammadex within last 24 hours
- Pregnancy Test**: No Pregnancy test

**Pregnancy Test**

Displays most recent pregnancy test (blood or urine) and any comments on the results captured within the last 2 weeks on this specific encounter.

Pregnancy Test  
06/13/2019 11:00 Pregnancy Test- Urine: Negative

Pregnancy Test  
06/13/2019 11:00 Pregnancy Test- Urine: Negative, Result phoned to and read back by: Nancy N,RN @6/21/2019 08:30

Pregnancy Test  
No Pregnancy test

**Prior Anesthetics (last 5)** Prior Anesthetics change to "shows the 5 most recent PAAs or Provider Sedation completed and any Pre-Op Assessment, PAE, Anesthesia Record, or Procedural Sedatio - Pre-Assessment documented within same 24 hours".

**Prior Anesthetics (last 5)**

<b>Date of Surgery: 10/10/19 10:00 Inpatient Admitted: 06/13/19</b>	<b>Date of Surgery: 07/29/19 07:35 Inpatient Admitted: 06/13/19</b>	<b>Date of Surgery: 07/26/19 12:39 Inpatient Admitted: 06/13/19</b>
Pre-Anesthesia Evaluation - 10/10/19 07:06 Anesthesia Record - 10/10/19 10:00 Provider Sedation - 10/10/19 12:47 Procedural Sedation - Pre Assessment - 10/10/19 09:15	Pre-Op Assessment Record- Inpatient - 07/29/19 08:00 Pre-Anesthesia Evaluation - 07/29/19 07:08 Anesthesia Record Pr - 07/29/19 07:35 Post-Anesthesia Assessment - 07/29/19 12:56	Pre-Op Assessment Record- Inpatient - 07/26/19 09:41 Pre-Anesthesia Evaluation - 07/26/19 12:09 Anesthesia Record - 07/26/19 12:39 Post-Anesthesia Assessment - 07/26/19 16:48

**Anesthesia Problems (last 3 + 1<sup>st</sup> instance)** displays most recent 3 times + 1<sup>st</sup> time that any problems or Anesthesia module documentation occurred on these problem topics: Difficult Intubation, Malignant Hyperthermia, Pseudocholinesterase Deficiency, Obstructive Sleep Apnea, or Prior Sedation/Anesthesia problems.

Once that documentation/problem is identified, if PAA, Anesthesia Record, Pre-Op/Sedation, Pre-Op Assessment, Pre-Op Assessment (inpatient), Lines/Procedures Insertion, Provider Sedation documents were filed within 1 week before or 1 week after that triggering documentation/problem date/time, links to those powerforms will display under the header.

If multiple triggers are documented within the same timeframe, only the 1<sup>st</sup> documentation/problem that triggered will show and only 1 column is created.

<b>Anesthesia Problems (last 3 + 1st instance)</b>	
<b>Difficult Intubation</b> (Intubation procedure interventions 07/08/19 11:17)	
Post-Anesthesia Assessment - 07/08/19 11:20 Lines/Procedures Insertion - 07/08/19 11:17	
<b>Malignant Hyperthermia</b> (Peri-Operative General Anesthesia Events 07/08/19 11:20)	(Patient/Family Hx. of Malignant Hyperthm 06/13/19 10:05)
Post-Anesthesia Assessment - 07/08/19 11:20 Lines/Procedures Insertion - 07/08/19 11:17	Pre-Op Assessment Record- Inpatient - 06/13/19 10:05
<b>Pseudocholinesterase Deficiency</b> (Family history of pseudocholinesterase deficiency 06/21/19 10:06)	
Pre-Op/Sedation - 06/21/19 00:00 Anesthesia Record - 06/21/19 00:00 Post-Anesthesia Assessment - 06/21/19 10:12	

If documentation of Anesthesia problem was done outside of powerform documentation such as adding a problem, and there is no anesthesia documentation around that time of adding the problem, only the trigger will display (no links).

Anesthesia Problems (last 3 + 1st instance)

**Obstructive Sleep Apnea**  
**(Obstructive sleep apnea 07/18/19 10:52)**

**Note:** Current PAE documentation plans for clicking review of systems and past medical history in z-tool will NOT trigger any of these notifications.

**Triggers for Anesthesia Difficult Intubation**

**Problems header**

Anesthesia Problems (last 3 + 1st instance)			
Difficult Intubation (Expected difficult intubation 07/18/19 11:03)	(Was this a Difficult Intubation 06/01/19 11:02)	(Was this a Difficult Intubation 03/01/13 11:03)	(Was this a Difficult Intubation 02/01/11 11:03)
Lines/Procedures Insertion - 07/18/19 11:01	Pre-Op/Sedation - 06/01/19 09:00 Anesthesia Record - 06/01/19 00:00 Post-Anesthesia Assessment - 06/01/19 11:02	Anesthesia Record - 02/28/13 18:00 Post-Anesthesia Assessment - 03/01/13 11:03	Pre-Op/Sedation - 02/01/11 00:00 Anesthesia Record - 02/01/11 00:00 Post-Anesthesia Assessment - 02/01/11 11:03

Lines/Procedures Insertion or Post Anesthesia Assessment powerform document – if Yes is selected for “Was this a difficult intubation?” or “Would another provider find this to be a difficult airway?”, requires Lines/Procedures Insertion **Procedure Comments** documented.

**Was this a difficult intubation?**

Yes  
 No  
 No- resolve previous difficult airway problem  
 N/A

**Would another provider find this to be a difficult airway?**

Yes     N/A  
 No

**Difficult Bag-Mask Ventilation**

Yes     N/A  
 No

**If Intubation/Bag-Mask was difficult record details here**

**Procedure Comments**

Segoe UI    9    **B** U *I* ~~S~~

Anesthesia module has documented Difficult Intubation as Yes – note is required below, Anticipated, or Unanticipated.

**Difficult Intubation**    No    **Yes - note is required below**    Anticipated    Unanticipated

Problems that will trigger: Difficult intubation, Difficult tracheal intubation, History of difficult intubation, Unexpected difficult intubation, Expected difficult intubation, Difficult bag mask ventilation.

**Malignant Hyperthermia**

<b>Malignant Hyperthermia</b> (Peri-Operative General Anesthesia Events 07/08/19 11:20) Post-Anesthesia Assessment - 07/08/19 11:20 Lines/Procedures Insertion - 07/08/19 11:17	(Patient/Family Hx. of Malignant Hyperthm 06/13/19 10:05) Pre-Op Assessment Record- Inpatient - 06/13/19 10:05
--	---

Anesthesia module has documented anything within the MH Precautions event.

CO2 absorber changed? **Yes**

Vaporizers tapped off? **Yes**

Machine flush? **Yes**

In line filters applied? **Yes: FILTER VAPOR CLEAN**

MH cart available? **Yes**

Clean anesthetic technique? **Yes**

Post-Anesthesia Assessment Surgical Events General Anesthesia Events has documented Malignant hyperthermia.

<b>General Anesthesia Events</b> <input type="checkbox"/> Equipment event <input type="checkbox"/> Dislodged medical support device (Not ETT) <input type="checkbox"/> Transfusion Reaction <input checked="" type="checkbox"/> <b>Malignant hyperthermia</b>	Equipment event: event due to malfunctioning or missing anesthesia equipment  Transfusion Reaction: any suspected or confirmed blood product transfusion reaction event Malignant hyperthermia: definite, suspected, or use of dantrolene (postoperative temp > 38.0 C)
---	--

Malignant Hyperthermia is now also triggered by Pharmacogenomic results for RYR1 or CACNA1S Phenotype indicating Malignant Hyperthermia Susceptible. Provides link to Pharmacogenomics mpage for the life of the patient.

<b>CACNA1S Results Interpretation</b> Automated Results <b>Abnormal</b> Abnormal Flag: <input type="radio"/> Normal <input checked="" type="radio"/> Abnormal Phenotype: <input type="radio"/> Uncertain Malignant Hyperthermia Susceptibility <input checked="" type="radio"/> <b>Malignant Hyperthermia Susceptible</b>	<b>RYR1 Results Interpretation</b> Automated Results <b>Abnormal</b> Abnormal Flag: <input type="radio"/> Normal <input checked="" type="radio"/> Abnormal Phenotype: <input type="radio"/> Uncertain Malignant Hyperthermia Susceptibility <input checked="" type="radio"/> <b>Malignant Hyperthermia Susceptible</b>
<b>Malignant Hyperthermia - PGx CACNA1S Phenotype Malignant Hyperthermia Susceptible 10/03/19 (MHS (malignant hyperthermia) 07/05/19 08:54)</b>	

**Problems:** Family history of malignant hyperthermia, FH: Malignant hyperthermia, Malignant hyperthermia, Malignant hyperthermia due to anesthesia, MHS – Malignant hyperthermia, Malignant Hyperthermia susceptibility, Malignant Hyperthermia susceptibility type 1 – type 6, Malignant hyperthermia with arthrogyposis-torticollis syndrome.

**Pseudocholinesterase deficiency**

<b>Pseudocholinesterase Deficiency (Pseudocholinesterase deficiency 07/18/19 10:50)</b>	<b>(Family history of pseudocholinesterase deficiency 06/21/19 10:06)</b>
Pre-Op Assessment Record - 07/18/19 06:29 Lines/Procedures Insertion - 07/15/19 08:41	Pre-Op/Sedation - 06/21/19 00:00 Anesthesia Record - 06/21/19 00:00 Post-Anesthesia Assessment - 06/21/19 10:12

Problems that will trigger: Pseudocholinesterase deficiency, Family history of pseudocholinesterase deficiency.

**Obstructive Sleep Apnea**

<b>Obstructive Sleep Apnea (OSA (obstructive sleep apnea) 07/08/19 11:18)</b>
Post-Anesthesia Assessment - 07/08/19 11:20 Lines/Procedures Insertion - 07/08/19 11:17

Problems that will trigger: Obstructive sleep apnea, Obstructive sleep apnea of adult, Obstructive sleep apnea of child, Obstructive sleep apnea syndrome, OSA - Obstructive sleep apnea, Severe pediatric obstructive sleep apnea, Sleep Apnea, Organic Sleep Apnea, Neurogenic Sleep Apnea, Sleep-disorder breathing.

**Prior Sedation/Anesthesia Problems**

<b>Prior Sedation/Anesthesia Problems (Family Hx of Sedation/Anesth Problems 07/18/19 10:56)</b>	<b>(Problems with prior anesthetics 06/13/19 10:05)</b>
Pre-Op Assessment Record - 07/18/19 06:29 Provider Sedation - 07/18/19 10:56 Lines/Procedures Insertion - 07/15/19 08:41	Pre-Op Assessment Record- Inpatient - 06/13/19 10:05

Provider Sedation document - selecting Yes for “Prior sedation/anesthesia problems”, or “Family history of sedation/anesthesia problems”, or any text in Sedation/anesthesia problems comments.

**Prior sedation/anesthesia problems**  
 Yes     No

**Family history of sedation/anesthesia problems**  
 Yes     No

**Sedation/anesthesia problems comments**

Post-Anesthesia Assessment when documenting surgical events, injury events as Central or arterial vascular access event, or peripheral vascular access event.

<p><b>Injury Events</b></p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Central or arterial vascular access event</li> <li><input checked="" type="checkbox"/> Peripheral vascular access event</li> <li><input type="checkbox"/> Eye injury/visual loss</li> <li><input type="checkbox"/> Dental injury</li> </ul>	<p>Peripheral vascular access event: infiltration, soft tissue damage, difficult PIV start (5 or more attempts to establish access)</p> <p>Visual loss: permanent impairment or total loss of sight within 30 days</p> <p>Dental injury: unanticipated loss of permanent tooth (teeth) within 30 days</p>
--	---

Anesthesia module Modify Peripheral IV where Difficult IV can be marked **Yes**.

The screenshot shows the 'Modify Peripheral IV' form. The title is 'IV Modify Peripheral IV'. The form contains several sections: 'Peripheral IV Number' with buttons for Existing, PIV #1, PIV #2, PIV #3, and PIV #4; 'Gauge' with buttons for 14 ga, 16 ga, 18 ga, 20 ga, 22 ga, 24 ga, and Other; 'Site' with buttons for Right, Left, Hand, Arm, Wrist, Forearm, Upper arm, Antecubital, Foot, Saphenous, Leg, and E; 'Prep' with buttons for Chlorhexadine, Alcohol, and Other; and 'Difficult IV?' with a 'Yes' button highlighted by a red box. At the bottom, there are fields for Lidocaine, J-Tip, and # of tips.

Lines/Procedures Insertion for Arterial or CV Line if Procedure outcome is not Well with no intervention.

The screenshot shows the 'Procedure outcome' dropdown menu. The options are: Well with no intervention (unchecked), Required interventions (checked), Unsuccessful attempt (checked), and Other: Problems with Atr... (checked).