



Your Pocket Guide to  
Understanding and Preventing  
**Maryland Hospital  
Acquired Conditions  
(MHACs)**

# What is Maryland's MHAC initiative?

- The program **links hospital payments to performance on a set of 65 MHACs** (also known as “Potentially Preventable Complications (PPC)”) across all payers and patients in the state.
- ***Basic concept*** – MHACs are complications that develop after the date and time of admission to the acute inpatient hospital.
- MHACs are considered:
  - not “present on admission” when patient is first admitted
  - linked to the provider documentation of diagnoses in the record
  - unlikely to result from natural disease progression

# Impact of MHACs

- Hospital performance is calculated by **comparing actual to expected rates** of MHAC occurrence.
- LifeBridge hospitals are compared with other Maryland hospitals and ranked.
- **Poor performance results in financial penalties and negative reputational consequences.**

# Global Exclusions

## Documented conditions that negate PPCs when present on admission

- Major trauma--includes major bone fractures, visceral lacs, TBI, crush and traumatic amputations
- Metastatic and major malignancies--depends on the type and may require additional documentation of any conditions such as malnutrition, cachexia or neutropenia
- History of transplanted organs (except kidney)
- Craniotomy for trauma
- HIV/AIDS disease (not HIV+ only)
- Hepatic encephalopathy on admission
- Shock on admission
- Cardiac arrest on admission
- Palliative Care (comfort measures only, end-of-life care)--can be assigned at any time during the stay

# How You Can Help

## DOCUMENTATION

- Document clearly
- List all differential diagnoses in the H&P
- Assign diagnoses accurately
- Clarify which conditions were developing on admission
- If you document that you cannot clinically determine if a condition was present on admission or not, it will not be considered a PPC
- Differentiate which laboratory and radiology findings are significant to the patient's clinical condition and which are not significant findings

# How You Can Help (cont.)

- **Please be specific in your progress notes and discharge summaries:**
  - All conditions that were **present at time of admission.**
  - Conditions that **truly did develop during hospitalization.**
  - Document if conditions that were thought to develop during hospitalization were **ruled out by further testing/time.**
- **Also, please respond promptly to our coders' and clinical documentation specialist's queries** when there is uncertainty on their part as to the above.

# Frequent MHACs at Sinai

## MHACs frequently seen at Sinai Hospital are:

- Acute pulmonary edema and respiratory failure
- UTI without catheter
- Ventricular fibrillation/ cardiac arrest
- Acute renal failure
- Shock
- Sepsis/SIRS due to infection
- Clostridium difficile colitis
- Post-operative hemorrhage & hematoma
- DVT
- Decubitus ulcers
- Post-op wound infections
- Pneumonia
- Aspiration pneumonia

# Frequent MHACs at Northwest

## MHACs frequently seen at Northwest Hospital are:

- Acute pulmonary edema and resp. failure without ventilation
- UTI without catheter
- Ventricular fibrillation/ cardiac arrest
- Renal failure without dialysis
- Pneumonia and other lung infections
- Acute Kidney Injury
- Respiratory Failure (not involving Pulmonary Edema)
- Shock
- Sepsis

# Importance of Coding

- **The Present On Admission (POA) distinction** is used during coding to categorize if conditions existed prior to admission.

***Was the condition present on admission? If not, then it's an MHAC.***

- POA includes these conditions:
  - Known at time of admission
  - Symptoms present on admission that later have a diagnosis attributed to them at discharge – these were likely POA
  - Developed during an outpatient encounter, including ED, observation, and outpatient surgery

# POA Definitions

Coders apply these POA indicators based on your documentation:

<b>Y</b>	<b>Yes</b> – Any condition the provider explicitly documents as being present at the time of inpatient admission
<b>N</b>	<b>No</b> – Not present at the time of inpatient admission
<b>W</b>	<b>Clinically undetermined</b> – Medical record documentation indicates that it cannot be clinically determined whether or not the condition was present at time of inpatient admission

If a diagnosis is coded as “Clinically Undetermined,” then it does NOT count as a hospital-acquired condition.

# Documentation is Key

- Be sure to clearly document any conditions that you have ruled out.
- Use clinical criteria and standardized definitions when documenting any diagnosis. Determine if the lab results clinically meet criteria for conditions such as ARF and Acute respiratory failure before you document.
- Differentiate between conditions that are expected outcomes and complications. For example if a postoperative hematoma is expected, document it as such.

# Case Studies

## Examples

- A patient is admitted with high fever and pneumonia, rapidly deteriorates and becomes septic. The discharge diagnosis lists sepsis and pneumonia. Provider documentation is unclear as to whether the sepsis was present on admission or developed shortly after admission, and may have the sepsis attributed as an MHAC.

# Case Studies

## Examples

- A patient is admitted for orthopedic surgery. Because of blood loss and perioperative volume shifts, creatinine rises from 0.8 to 1.1. Provider documents “acute renal failure” because of creatinine rise. Creatinine returns to normal within 48 hours; patient is never oliguric. Renal failure never “truly” present.
- Effectively documenting a skin exam on admission could prevent a subsequent “hospital-acquired” decubitus ulcer.

# Questions? Ideas?

If you have questions or ideas about MHACs, documentation, and improvement, please contact:

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# HSCRC's List of MHACs

MHAC #	MHAC Description
1	Stroke & Intracranial Hemorrhage
2	Extreme CNS Complications
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation
5	Pneumonia & Other Lung Infections
6	Aspiration Pneumonia
7	Pulmonary Embolism
8	Other Pulmonary Complications
9	Shock
10	Congestive Heart Failure
11	Acute Myocardial Infarction
12	Cardiac Arrhythmias & Conduction Disturbances
13	Other Cardiac Complications
14	Ventricular Fibrillation/Cardiac Arrest
15	Peripheral Vascular Complications Except Venous Thrombosis
16	Venous Thrombosis
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding
19	Major Liver Complications
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding
21	Clostridium Difficile Colitis
23	GU Complications Except UTI
24	Renal Failure without Dialysis
25	Renal Failure with Dialysis

# HSCRC's List of MHACs (cont.)

MHAC #	MHAC Description
26	Diabetic Ketoacidosis & Coma
27	Post-Hemorrhagic & Other Acute Anemia with Transfusion
28	In-Hospital Trauma and Fractures
29	Poisonings Except from Anesthesia
30	Poisonings due to Anesthesia
31	Decubitus Ulcer
32	Transfusion Incompatibility Reaction
33	Cellulitis
34	Moderate Infectious
35	Septicemia & Severe Infections
36	Acute Mental Health Changes
37	Post-Operative Infection & Deep Wound Disruption Without Procedure
38	Post-Operative Wound Infection & Deep Wound Disruption with Procedure
39	Reopening Surgical Site
40	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc
42	Accidental Puncture/Laceration During Invasive Procedure
43	Accidental Cut or Hemorrhage During Other Medical Care
44	Other Surgical Complication - Mod
45	Post-procedure Foreign Bodies
46	Post-Operative Substance Reaction & Non-O.R. Procedure for Foreign Body
47	Encephalopathy
48	Other Complications of Medical Care
49	Iatrogenic Pneumothrax

# HSCRC's List of MHACs (cont.)

MHAC #	MHAC Description
50	Mechanical Complication of Device, Implant & Graft
51	Gastrointestinal Ostomy Complications
52	Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection
53	Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheters & Infusions
54	Infections due to Central Venous Catheters
55	Obstetrical Hemorrhage without Transfusion
56	Obstetrical Hemorrhage with Transfusion
57	Obstetric Lacerations & Other Trauma Without Instrumentation
58	Obstetric Lacerations & Other Trauma With Instrumentation
59	Medical & Anesthesia Obstetric Complications
60	Major Puerperal Infection and Other Major Obstetric Complications
61	Other Complications of Obstetrical Surgical & Perineal Wounds
62	Delivery with Placental Complications
63	Post-Operative Respiratory Failure with Tracheostomy
64	Other In-Hospital Adverse Events
65	Urinary Tract Infection without Catheter
66	Catheter-Related Urinary Tract Infection

# Targeted MHACs (“Tier A”)

*More heavily weighted conditions*

MHAC #	MHAC Description
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation
5	Pneumonia & Other Lung Infections
6	Aspiration Pneumonia
7	Pulmonary Embolism
9	Shock
14	Ventricular Fibrillation/Cardiac Arrest
16	Venous Thrombosis
24	Renal Failure without Dialysis
28	In-Hospital Trauma and Fractures
31	Decubitus Ulcer
35	Septicemia & Severe Infections
37	Post-Operative Infection & Deep Wound Disruption Without Procedure
38	Post-Operative Wound Infection & Deep Wound Disruption with Procedure
40	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc
42	Accidental Puncture/Laceration During Invasive Procedure
49	Iatrogenic Pneumothrax
54	Infections due to Central Venous Catheters
65	Urinary Tract Infection without Catheter
66	Catheter-Related Urinary Tract Infection