

## PART 5: APPENDICES

### APPENDIX I: ADVERSE DRUG EVENTS (ADE) TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions to prevent ADEs in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### 2017 Adverse Drug Events (ADE) Top Ten Checklist

1. Standardize concentrations and minimize dosing options where feasible.
2. Set dosing limits for insulin and opioids.
3. Set target glucose levels at 140-180 mg/dL in the hospitalized patient.
4. Eliminate "sliding scale" insulin as the sole method of glycemic management. Manage all patients with basal+bolus+correction if eating, and basal+bolus if not.
5. Seek new insulin orders for any patient with a single episode of inpatient hypoglycemia (less than 70 mg/dL).
6. Coordinate meal and insulin times.
7. Implement pharmacist-driven warfarin management.
8. Use standard opioid equi-analgesic conversion tables.
9. Use standard order sets to avoid multiple concurrent prescriptions of opioids and sedatives.
10. Use effective tools to reduce over-sedation from opioids (e.g., risk assessment tools such as "STOP BANG" and sedation assessment tools such as the Richmond Agitation Sedation Scale or the Pasero Opioid-Induced Sedation Scale).

# PART 5: APPENDICES

## APPENDIX I: AIRWAY SAFETY TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions for recognition and prevention of airway events and harm in your facility

Reference [www.hret-hiin.org](http://www.hret-hiin.org)

### Airway Safety Top Ten Checklist

- Adopt an assessment tool to identify patients at high risk for respiratory depression or airway compromise. Use this to implement appropriate monitoring guidelines based on patient risk factors for airway compromise and respiratory depression. Educate family for rapid response team activation.
- Integrate an identification process in the electronic medical record to alert the health care team of the potential for a difficult airway.
- Adopt the Pasero sedation scale (or another validated tool) to assess sedation levels for patients receiving opioids. Use a change in the scale to trigger a rapid response team evaluation.
- Adopt and utilize a standardized airway assessment tool (such as LEMON: Look, Evaluate, Mallampati, Obstruction, Neck) to identify patients with difficult airways.
- Develop airway carts to ensure necessary equipment is readily available to address unanticipated airway events in each relevant unit.
- Develop, adopt and utilize a difficult airway algorithm.
- Adopt spontaneous awakening trials (SATs), coordinated with spontaneous breathing trials (SBTs) to promote early weaning and extubation.
- Update standards for airway device repositioning and for skin and mucosal inspection to ensure skin and mucosa are intact and not at risk for injury.
- Implement simulation training for the health care team in airway assessment, difficult airway management and airway placement.
- Cultivate a process for timely root cause analysis with the bedside staff for airway safety issues such as delays in recognition, delays in airway placement, hypoxemia during intubation, multiple intubation attempts, airway dislodgement and skin injury.

# PART 5: APPENDICES

## APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions for CAUTI prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### Catheter-Associated Urinary Tract Infections (CAUTI)

#### Top Ten Checklist

- Insert indwelling urinary catheters only for clinically appropriate reasons. Involve clinicians in all units where catheters are commonly inserted, including ED, ICU and surgical procedure units.
- Promote use of alternatives to indwelling catheters such as external catheters, bladder scanners, intermittent catheterization, optimal incontinence products, prompted toileting and use of urinals, bedside commodes and daily weights as alternative methods to collect and measure.
- Ensure proper aseptic insertion and maintenance technique involving hand hygiene, soap and water perineal care, strict adherence to aseptic catheter insertion steps, catheter securing, no kinks, bag lower than bladder and avoid breaks in closed system. Do not routinely change catheters. Educate all staff and family that care for or transport catheterized patients.
- Optimize prompt removal of urinary catheters that are not clinically indicated. Conduct daily review of catheter necessity, with consideration of nurse empowerment to remove by default if no longer clinically indicated.
- Culture only when symptomatic. Do not culture because of odor, color, cloudiness or simply prolonged catheter use.
- Perform root cause analysis on all CAUTIs to identify root causes and contributing factors. Evaluate and discuss with interprofessional team to identify systems issues and practice gaps related to unnecessary or improper catheter use.
- Provide transparent feedback to providers and staff regarding hospital-wide and unit-specific infection and catheter utilization data.
- Observe, document competency and provide real-time feedback of catheter insertion and maintenance on a routine basis.
- Conduct regular catheter rounds with targeted education to reduce inappropriate use and clarify interpretations of appropriateness criteria.
- Encourage and expect staff, patients and families to speak up and consider hand hygiene as an "always event," as well as to inquire about the daily necessity of indwelling urinary catheters.

## PART 5: APPENDICES

### APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current interventions or initiate new ones for CDI prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

#### Clostridium Difficile infections (CDI) Top Ten Checklist

-  Develop or enhance your antibiotic stewardship program to ensure optimal antibiotic prescribing and reduce overuse and misuse of antibiotics.
-  Evaluate the use of antibiotics by infection type and by unit to better understand where the opportunities for stewardship exist; be sure to include patients with urinary tract infections and lower respiratory infections.
-  Evaluate the use of antimicrobials among patients with CDI and provide feedback to medical staff and facility leadership.
-  Develop processes to minimize testing of patients at low probability for CDI to minimize false positive polymerase chain reaction results for CDI.
-  Establish a lab-based alert system to immediately notify the infection prevention team and providers of newly-identified patients with positive CDI lab results. Ensure the system includes holiday and weekend notification.
-  Remembering that CDI is a clinical diagnosis and not a lab diagnosis, develop processes where discussion occurs between physicians and other clinicians when a lab test for CDI is reported as positive.
-  Establish cleaning protocols for a cleaning solution that is effective against CDI spores.
-  Utilize a monitoring system to evaluate and validate effective room-cleaning, and to provide feedback, reward and recognition to those responsible.
-  Engage and educate patients, visitors, families and community partners (e.g., home care agencies, nursing homes) to prevent CDI across the continuum of care.
-  Establish and maintain an effective, creative, innovative and engaging hand hygiene program.

# PART 5: APPENDICES

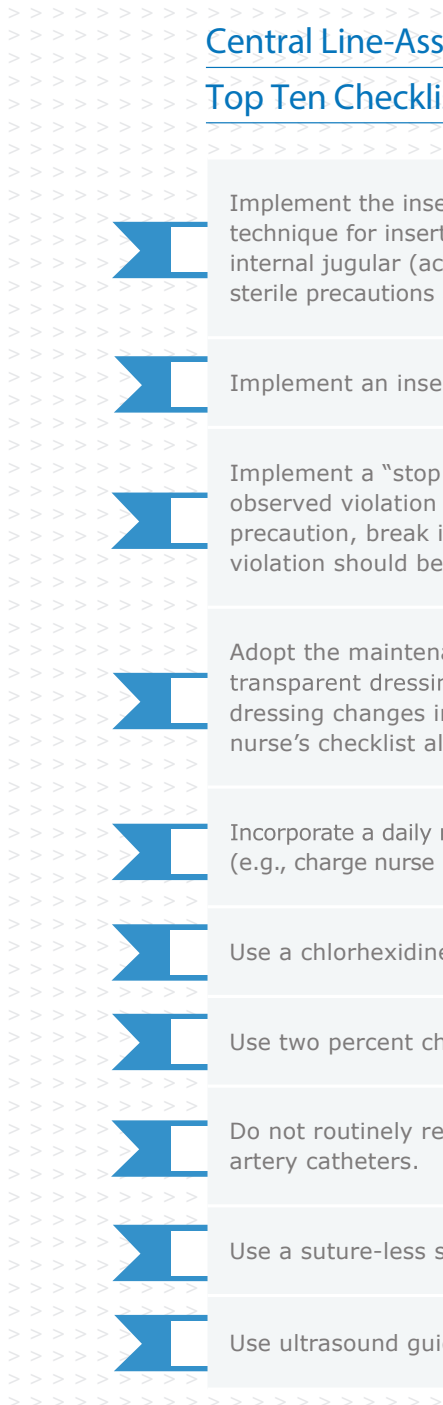
## APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions for CLABSI prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### Central Line-Associated Bloodstream Infections (CLABSI) Top Ten Checklist



Implement the insertion bundle: procedural pause, hand hygiene, aseptic technique for insertion and care, site selection of subclavian (preferred) or internal jugular (acceptable), avoidance of femoral vein in adults, maximal sterile precautions and skin prep with two percent chlorhexidine.

Implement an insertion checklist to promote compliance and monitoring.

Implement a "stop the line" approach to the insertion bundle. If there is an observed violation of infection control practices (e.g., maximal sterile barrier precaution, break in sterile technique), line placement should stop and the violation should be corrected.

Adopt the maintenance bundle with dressing changes (every seven days for transparent dressings), line changes and IV fluid changes. Incorporate dressing changes into daily assessment and review. Can be part of charge nurse's checklist along with the daily review of line necessity.

Incorporate a daily review of line necessity and maintenance bundle into workflow (e.g., charge nurse rounds). Use an electronic health care record prompt.

Use a chlorhexidine impregnated sponge dressing.

Use two percent chlorhexidine impregnated cloths for daily skin cleansing.

Do not routinely replace CVCs, PICCs, hemodialysis catheters or pulmonary artery catheters.

Use a suture-less securement device.

Use ultrasound guidance to place lines if this technology is available.

# PART 5: APPENDICES

## APPENDIX I: IATROGENIC DELIRIUM TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: Checklist to review current or initiate new interventions for iatrogenic delirium prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### 2017 Iatrogenic Delirium Top Ten Checklist

PROCESS CHANGE	IN PLACE	NOT DONE	WILL ADOPT	NOTES <i>(Responsible and By When?)</i>
1. Use a validated tool to regularly assess patients for delirium.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Include Richmond Agitation Sedation Scale (RASS)/delirium screening (or a validated agitation scale) in multidisciplinary rounds and hand-off communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Treat pain before agitation using scheduled pain management protocol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Avoid using benzodiazepines in patients at high risk for delirium.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Administer sedation using a goal according to a scale such as RASS or Modified Ramsey Score as ordered by a physician.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Develop a process that ensures daily reduction or removal of sedative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Implement an early, progressive mobilization program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Provide cognitively stimulating activities multiple times per day and enlist family engagement to provide a calm, familiar environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Implement a non-pharmacological sleep protocol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Monitor incident reports for possible cases in which delirium may have been a factor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: Health Research & Educational Trust

### 2017 Falls Top Ten Checklist

PROCESS CHANGE	
1. Assemble a multidisciplinary falls team with an executive sponsor, front-line staff from nursing and rehab, management support, physical therapy, physician and pharmacy representatives to oversee the strategic plan for the fall injury prevention program.	<input type="checkbox"/>
2. Engage all levels of staff and disciplines in creating a safe environment that is free of tripping and slipping hazards and is responsive to patient needs, i.e., “no pass zone” and environmental rounds. Review all falls in leadership huddles to raise awareness of hazards and contributing factors.	<input type="checkbox"/>
3. Identify high risk/vulnerable populations upon admission to receive a multifactorial falls assessment. Do not rely on a risk score alone. Examples: patients admitted with a fall, patients with a history of fall in the past six months, patients over 65, ABCS criteria, depending upon the population served.	<input type="checkbox"/>
4. Provide multifactorial assessments and targeted interventions for high risk or vulnerable elderly patients. Assess for and address risk factors associated with gait, balance and mobility, medications, cognitive assessment, heart rate and rhythm, postural hypotension, feet and footwear and home environment hazards.	<input type="checkbox"/>
5. Communicate risk across the team: EMR Banners, hand-offs, visual cues, huddles and whiteboards.	<input type="checkbox"/>
6. Round every one to two hours on patients; address the five P’s—pain, position, personal belongings, pathway and potty. Escalate rounding frequency to meet patient needs.	<input type="checkbox"/>
7. Implement mobility plans for all patients to preserve function and prevent hazards of immobility: rehab referral and collaboration for a progressive activity and ambulation program.	<input type="checkbox"/>
8. Review medications—avoid unnecessary hypnotics and sedatives and remove culprit medications from order sets. Target high-risk or vulnerable patients for pharmacist medication review.	<input type="checkbox"/>
9. Include patients, families and caregivers in efforts to prevent falls. Provide structured education apart from admission orientation. Educate using teach-back regarding fall prevention measures and encourage family members to stay with high-risk, vulnerable patients.	<input type="checkbox"/>
10. Conduct post-fall huddles at the bedside with patient and family immediately after the fall to analyze how and why the fall occurred, and implement change(s) to prevent future falls. Include a pharmacist and rehab staff member in the post-fall huddle or case review.	<input type="checkbox"/>

## APPENDIX I: HAPU/I TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions for HAPU/I prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### Hospital-Acquired Pressure Ulcers/Injuries (HAPU/I) Top Ten Checklist



Conduct prevalence studies to collect data on pressure ulcer/injury occurrences and to observe processes of care in real time to identify opportunities to improve the reliability of care delivery.



Learn from HAPU/I by conducting a root cause analysis on Stage 3, 4 and unstageable ulcer/injuries and by analyzing HAPU/I data for trends by unit for patient characteristics, anatomical location and other contributing factors.



Conduct a pressure ulcer/injury risk assessment within four hours of admission. Reassess at intervals defined by patient care need.



Activate HAPU/I prevention bundles for high-risk patients, including appropriate surface selection, off-loading pressure (turning and repositioning), nutrition and a moisture management plan.



Assess reliability of documentation of pressure ulcer/injury present on admission and of appropriate classification of moisture versus pressure related skin damage.



Provide annual education and competency evaluation on early detection of Stage 1, assessing darkly pigmented skin, staging of pressure ulcer/injuries and differentiating pressure from moisture related skin damage.



Investigate clinical practices regarding skin safety in the operating room and in the prevention and reporting of medical device-related pressure ulcer/injuries.



Establish a partnership with nutritional services to ensure timely nutritional assessments and implementation of interventions for high-risk patients.



Assess adequacy of moisture management and skin care products, support surfaces (ER carts, OR Tables, ICU units, medical/surgical units) and shear prevention devices (lifts, glide sheets). Engage executive leadership in planning for upgrading or replacement as needed.



Engage patients and families in HAPU/I prevention. Design a process to engage patients and families in assessing for early warning signs and participating in preventive measures.





# Sacral Injury Prevention Top 10 Checklist

## WHY IS THIS IMPORTANT?

The sacral region is the most frequent anatomical location for pressure related injuries due to the pressure from supine positioning, friction and shear during repositioning and the associated moisture in the region due to incontinence or perspiration.



-  Keep head of bed elevation at 30 degrees or less to avoid friction from sliding down in bed.
-  Use two-person repositioning to avoid friction and shear associated with dragging.
-  Perform small weight shifts, turning no greater than 30 degrees to either side. Use your hand to check that the sacrum is free of pressure.
-  Optimize the mattress or chair support surface by not over padding or leaving slings in place.
-  Upgrade to reactive constant low pressure or a low air loss mattress for patients with a Braden moisture sub-score of 1 or 2 or if they are incontinent.
-  Apply a multilayered soft silicone bordered dressing over the sacrum of critically ill patients. Apply dressing in the ED for patients likely to be admitted for surgery or to critical care.
-  Apply a protective barrier cream after every cleaning and after incontinence.
-  Use high quality underpads to wick away moisture Instead of diapers whenever possible.
-  Anticipate the patient's elimination needs and provide toileting or hygiene according to schedule or need.
-  Provide fortified foods or high-protein/high calorie oral nutritional supplements between meals if nutritional requirements cannot be met by dietary intake.



# Sacral Injury Prevention Top 10 Checklist



## REFERENCES

Black J, Clark M, Dealey C, Brindle CT, Alves P, Santamaria N, et al. Dressings as an adjunct to pressure ulcer prevention: consensus panel recommendations. *Int Wound J*. 2014 Mar; 12(4):484-8. Retrieved at: <http://www.dekubity.eu/wp-content/uploads/2016/01/2014-Black-J-et-al.pdf>

McNichol, L., Watts, C., Mackey, D., Beitz, J. M., & Gray, M. (2015). Identifying the right surface for the right patient at the right time: generation and content validation of an algorithm for support surface selection. *Journal of Wound, Ostomy, and Continence Nursing*, 42(1), 19–37. Retrieved at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4845766/>.

National Pressure Ulcer Advisory Panel (2014). Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Retrieved at: <http://www.npuap.org/wp-content/uploads/2014/08/Updated-10-16-14-Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-16Oct2014.pdf>.

World Union of Wound Healing Societies Consensus Document (2016) Role of dressings in pressure ulcer development. Retrieved at: <http://pup.molnlycke.com/globalassets/documentlibrary/wuwhs-pup-consensus.pdf>.





# SEPSIS/HAPI Top 10 Checklist

## WHY IS THIS IMPORTANT?

Patients with sepsis experience a cascade of symptoms and pathophysiology that makes them extremely vulnerable to pressure injuries in the acute phase of illness. These contributing factors include: fever, diaphoresis, hypoperfusion, poor tissue oxygenation, inflammation, and ultimately multiple organ system failure. It is important to note that skin, as the integumentary system, can fail, too.



-  Reposition slowly and gradually to allow sufficient time for stabilization of perfusion and oxygenation. Use two-person repositioning to avoid friction and shear associated with dragging.
-  Do not elevate head of bed greater than 30 degrees to minimize friction and shear from sliding down in bed, unless contraindicated.
-  Float heels off bed by supporting the calf and lower leg with a foam wedge or heel suspenders.
-  Perform small turns in position, more frequent than every 2 hours, turning no greater than 30 degrees to either side. Use your hand to check that the sacrum is free of pressure.
-  Upgrade to reactive constant low pressure or a low air loss mattress for patients with any moisture issues or incontinence. Use additional features such as turn-assist and percussion, as needed.
-  Apply a protective foam dressing over sacrum to protect from shear, friction, and moisture **while the patient is still in the emergency room**. Monitor dressing for rolling at edges, skin irritation, and integrity of the dressing.
-  Apply a protective barrier cream after every cleaning and after incontinence.
-  Use high quality under pads to wick away moisture. Avoid the use of diapers. Do not over pad the surface with additional layers of under pads or linens to optimize the mattress performance.
-  Anticipate the patient's elimination needs and provide toileting or hygiene according to schedule or need.
-  Initiate feeding as soon as possible and limit NPO status. Provide fortified foods or high-protein/high calorie oral nutritional supplements between meals, or enteral or parenteral feedings if nutritional requirements cannot be met by dietary intake.



# SEPSIS/HAPI Top 10 Checklist



## REFERENCES

Black J, Clark M, Dealey C, Brindle CT, Alves P, Santamaria N, et al. Dressings as an adjunct to pressure ulcer prevention: consensus panel recommendations. *Int Wound J*. 2014 Mar;12(4):484-8. Retrieved at: <http://www.dekubity.eu/wp-content/uploads/2016/01/2014-Black-J-et-al.pdf>

McNichol, L., Watts, C., Mackey, D., Beitz, J. M., & Gray, M. (2015). Identifying the right surface for the right patient at the right time: generation and content validation of an algorithm for support surface selection. *Journal of Wound, Ostomy, and Continence Nursing*, 42(1), 19–37. Retrieved at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4845766/>.

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World Union of Wound Healing Societies Consensus Document (2016). Role of dressings in pressure ulcer development. Retrieved at: <http://pup.molnlycke.com/globalassets/documentlibrary/wuwhs-pup-consensus.pdf>.



# PART 5: APPENDICES

## APPENDIX I: IATROGENIC DELIRIUM TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: Checklist to review current or initiate new interventions for iatrogenic delirium prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### 2017 Iatrogenic Delirium Top Ten Checklist

PROCESS CHANGE	IN PLACE	NOT DONE	WILL ADOPT	NOTES <i>(Responsible and By When?)</i>
1. Use a validated tool to regularly assess patients for delirium.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Include Richmond Agitation Sedation Scale (RASS)/delirium screening (or a validated agitation scale) in multidisciplinary rounds and hand-off communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Treat pain before agitation using scheduled pain management protocol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Avoid using benzodiazepines in patients at high risk for delirium.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Administer sedation using a goal according to a scale such as RASS or Modified Ramsey Score as ordered by a physician.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Develop a process that ensures daily reduction or removal of sedative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Implement an early, progressive mobilization program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Provide cognitively stimulating activities multiple times per day and enlist family engagement to provide a calm, familiar environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Implement a non-pharmacological sleep protocol.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Monitor incident reports for possible cases in which delirium may have been a factor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

# Malnutrition Top Ten Checklist

## APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions for malnutrition prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)



Evaluate the current state of malnutrition screening, assessment and nutritional care planning. Assess the effectiveness of current work flows.



Screen all patients for malnutrition and nutritional risk upon admission.



Conduct a comprehensive nutritional assessment within 24-48 hours for patients who screen positive for malnutrition or nutrition risk.



Implement interventions rapidly. Activate diets, parenteral or enteral feedings as soon as possible. Build protocols to support activation of feedings while awaiting nutritional assessment.



Diagnose and document mild, moderate, or severe malnutrition to support adequate reimbursement for nutritional services.



Minimize fasting or interrupting feedings as much as possible to optimize intake. Implement ERAS nutritional guidelines for patients undergoing colorectal, thoracic and vascular surgery and radical cystectomy.



Provide a positive meal experience for patients. Support ordering, set up and feeding to optimize the patient's intake. Monitor oral consumption and report and address poor intake.



Communicate the patient's nutritional status and plan in the interdisciplinary plan of care, during clinical rounds and during handoffs.



Provide nutritional care discharge planning. Include the nutritional care plan in discharge summaries, post-hospitalization handoffs and in post-discharge phone calls.



Partner with patients and their caregivers in making nutritional care choices and in learning and understanding their post-discharge nutritional care plan. Use teach-back to ensure understanding.

# PART 5: APPENDICES

## APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current interventions or initiate new ones for CDI prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### Multi-Drug Resistant Organism (MDRO) Infections

#### Top Ten Checklist

Institute an antimicrobial stewardship program incorporating prospective review and transparent data feedback. Design a program that includes preauthorization and/or prospective audit and feedback regarding antimicrobial usage. Programs should decide whether to include one strategy or a combination of approaches, depending on organizational gap analysis and availability of resources.

Avoid inappropriate antimicrobial prescriptions. Involve physicians and pharmacists to design formulary controls and targeted ordering guidance based upon likely source of infection.

Approach MDRO transmission as a cross-cutting harm. Integrate MDRO prevention strategies into all HAI infection prevention approaches, focusing on institutional cultural changes to hardwire key strategies (e.g., antibiotic de-escalation, reducing unnecessary urine cultures and treatment for asymptomatic bacteriuria and instituting antibiotic "time outs" after a designated treatment period).

Engage community partners, physicians, patients and other health care facilities in developing a community action plan to reduce MDRO burden in your region.

Develop a surveillance plan based upon organizational risk assessment, focusing on rapid identification of MDRO and measures to control known risks. Include lab-identified event surveillance, plus clinical surveillance, implementing special approaches for identified risk areas or consistent with regulatory requirements (i.e., AST).

Hardwire hand hygiene. Engage all direct care staff and providers in peer-supported hand hygiene adherence effort, incorporating direct observation measurement strategy and individual accountability with strong peer support model.

Formulate strategy for contact precautions to prevent MDRO transmission. Consider organizational gap analysis, MDRO environmental and community burden and availability of staff and other resources (e.g., PPE and private rooms versus cohorting). Develop clear guidance and evidence-based protocols for instituting contact precautions (CP), with measurement of adherence to glove and gown use for patients in CP.

Focus on team-based strategies to ensure reliable cleaning of equipment and environment. Assess competencies for high-touch surface cleaning. Utilize technology to support communication regarding patient room assignments and discharges for timely terminal cleaning.

Consider universal decolonization through chlorhexidine bathing and nasal decolonization for ICU patients. Match decolonization strategies to risk assessment and surveillance findings to target appropriate units and populations.

Educate patients and families using teach-back regarding the risks of antimicrobial use, as well as infection prevention measures.

# PART 5: APPENDICES

## APPENDIX I: UNDUE RADIATION EXPOSURE TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to assess current practices to prevent undue radiation exposure in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### 2017 Undue Radiation Exposure Top Ten Checklist

PROCESS CHANGE	IN PLACE	NOT DONE	WILL ADOPT	NOTES <i>(Responsible and By When?)</i>
1. Develop a process to collect, store, and analyze patient dosimetry data. Provide patients with tools to track their personal medical-imaging history.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Establish a Radiation Safety Committee that is responsible for evaluating performance of equipment and establishing and monitoring adherence to dosing and utilization protocols.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Create and implement a "Don't" list of exams that have little proven value or do not change the course of treatment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Participate in the National Dose Index Registry.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Require informed consents specific to ionizing-radiation examinations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Eliminate routine ionizing-radiation orders (e.g., a daily chest x-ray).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Assess staff or practitioner knowledge about the risks and benefits of ionizing radiation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Develop a toolkit with educational materials about radiation safety for ordering practitioners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Analyze data and information from EMR alerts and redesign and improve standardized processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Develop specific criteria for the use of ionizing radiation in special cases (e.g., for infants, small children and pregnant women).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



## Preventable Readmissions Top Ten Checklist



Develop a data-informed targeting strategy to identify target populations with higher than average rates of readmissions. Deliver enhanced readmission reduction strategies to these “target population” patients.



Identify root causes of readmissions based on interviewing patients, caregivers and providers. Prioritize your improvement strategies based on those that will address the root causes of readmissions among your patients.



Improve care transition processes for all patients, regardless of readmission risk. Refer to the proposed practices articulated in the proposed CMS Conditions of Participation for Discharge Planning.



Provide a customized transitional care plan for all patients.



Effectively communicate with patients and caregivers. Use translation services, teach-back, motivational interviewing and materials written in plain language.



Deliver enhanced readmission reduction services for your target populations based on their root causes of readmissions.



Design a high utilizer approach for patients with four or more admissions per year. Identify their “driver of utilization,” and use care plans to improve care across settings.



Engage the emergency department as a new site of readmission reduction activities.



Collaborate with clinical, behavioral, and social service providers to improve cross-setting care processes for shared patient populations. Ensure you are aware of the services and supports that are available from other providers and agencies in your community.



Measure what you implement, driving to reliable delivery of improved processes.

# Culture of Safety Top Ten Checklist

## APPENDIX I: CULTURE OF SAFETY TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current interventions or initiate new ones to ensure a culture of safety in your facility.

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

1. Include patient and workforce safety data and improvement activities in presentations to the board, as well as in unit level and organization quality and safety meetings.
2. Implement daily leadership safety briefings to create shared understanding of patient and workforce safety vulnerabilities, foster mutual support and disseminate information about safety events.
3. Institute Leadership WalkRounds™, integrating both patient safety and workforce safety issues. Effective rounds give leaders the opportunity to observe processes and actively listen to the front lines, patients and families about their barriers and concerns, and to gather ideas for improvement.
4. Encourage reporting of patient safety events, near misses and work conditions that present physical hazards or psychological safety risks. Make reporting easy and ensure that processes exist for confidential and anonymous reporting, if needed. Reward reporting and celebrate "good catches."
5. Establish reporting, peer intervention and escalation processes to quickly extinguish disruptive, unprofessional and disrespectful behaviors.
6. Appreciate and acknowledge small wins and positive behaviors. Schedule team celebrations and integrate storytelling to prioritize joy and meaning in work and foster well-being.
7. Implement a safe patient handling and movement program. Involve front-line teams in choosing equipment and developing and implementing training programs.
8. Conduct a hazard assessment for conditions that contribute to unsafe work conditions, including risks for needle stick injuries, infection transmission, musculoskeletal injuries, disrespectful behavior, bullying and workplace violence.
9. Utilize simulation training with interprofessional teams to promote effective team behaviors, situational awareness, mutual support and anticipatory critical thinking. Use handoff communication training and process design as an opportunity to develop improved team communications.
10. Use a standard approach to balance individual accountability with leadership accountability for systems issues when addressing adverse events. Integrate support for care team members involved in an adverse patient event or workplace violence event as part of the response.

## 2017 Sepsis Mortality Reduction Top Ten Checklist



1. Collect and analyze sepsis mortality data.



2. Gather a program planning team, including organizational leaders, physician champions, sepsis advisors and multidisciplinary members from the ED, ICU and med/surg, to develop a strategy for implementing improvement ideas.



3. Adopt a sepsis screening tool or system in the ED and/or in one inpatient department.



4. Screen every adult patient during initial evaluation in the ED and/or once a shift in one identified inpatient department.



5. Develop an alert mechanism to provide for prompt escalation and action from care providers with defined roles and responsibilities.



6. Develop a standard order set or protocol linking blood cultures and lactate lab draws (blood culture = lactate level) and ensure lactate results are available within 45 minutes. Consider a lactate of > 4mmol/L, a CRITICAL result to prompt notification.



7. Place broad-spectrum antibiotics in the ED medication delivery system to allow for antibiotic administration within 1 hour (collaborate with pharmacy and infectious disease for appropriate selection).



8. Develop an order-set or protocol for 3-hour resuscitation bundle and the 6-hour septic shock bundle that uses an "opt-out" process instead of an "opt-in" for all bundle elements with the explicit end goals of therapy and assessment of volume status.



9. Develop a process for rapid fluid infusion of isotonic solution 30ml/kg for patients with septic shock for timely resuscitation.



10. Utilize a "time zero" method that also displays visual cues for the health care team for timing of interventions for the sepsis.

# PART 5: APPENDICES

## APPENDIX I: SURGICAL SITE INFECTION (SSI) TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new interventions for SSI prevention in your facility

Reference: [www.hret-hiin.org](http://www.hret-hiin.org)

### Surgical Site Infections (SSI) Top Ten Checklist



Develop and follow standardized order sets for each surgical procedure to include antibiotic name, timing of administration, weight-based dose, re-dosing (for longer procedures) and discontinuation.

Ensure pre-operative skin antisepsis (e.g., basic soap and water shower; antiseptic agent).

Develop standardized peri-operative skin antiseptic practices utilizing the most appropriate skin antiseptic for the type of surgery performed.

Develop a standardized procedure to ensure normothermia by warming all surgical patients.

Develop and implement protocols to optimize glucose control in all surgical patients.

Administer supplemental oxygen during the pre-operative, intra-operative and post-operative periods.

Develop a protocol to screen and/or decolonize selected patients with *Staphylococcus aureus*.

Adhere to established guidelines (e.g., HICPAC, AORN) to ensure basic aseptic techniques (e.g., traffic control, attire) are adhered to uniformly.

Utilize a Safe Surgery Checklist to drive development of a culture of safety that provides an environment of open and safe communication among the surgical team.

Establish a system where surgical site infection data is analyzed and shared.

# PART 5: APPENDICES

## APPENDIX I: VENTILATOR ASSOCIATED EVENTS (VAE) TOP TEN CHECKLIST

Associated Hospital/Organization: HRET HIIN

Purpose of Tool: A checklist to review current or initiate new VAE reduction interventions in your facility

Reference [www.hret-hiin.org](http://www.hret-hiin.org)

### 2017 Ventilator-Associated Events (VAE) Top Ten Checklist

PROCESS CHANGE	IN PLACE	NOT DONE	WILL ADOPT	NOTES <i>(Responsible and By When?)</i>
1. Include all elements of the bundle in charge nurse rounds and nurse-to-charge-nurse reports.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Enlist a multidisciplinary approach. Nurses, physicians and respiratory therapy staff need to work together to ensure bundle items such as head of bed (HOB), spontaneous awakening trials (SAT), spontaneous breathing trials (SBT) and oral care are done according to recommendations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Elevate HOB to between 30-45 degrees (use visual cues, designate one person to check for HOB every one to two hours).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Establish a process to perform routine oral care every two hours with antiseptic mouthwash and Chlorhexidine 0.12 percent every 12 hours (create visual cues, partner with respiratory therapy in performing oral care). Make the above oral care part of the ventilator order set as an automatic order that requires the physician to actively exclude it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Include peptic ulcer disease prophylaxis (PUD) on ICU admission and ventilator order sets as an automatic order that requires the physician to actively exclude it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Include venous thromboembolism (VTE) prophylaxis on ICU admission and ventilator order sets as an automatic order that would require the physician to actively exclude it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. Invite families to participate in care by encouraging them to ask if prevention efforts have been completed, such as oral care and HOB elevation. Educate families on the risk of VAE, preventive measures put in place and what they can do to help (e.g., perform oral care or passive range of motion exercises if willing).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. Perform and coordinate SAT and SBT to maximize weaning opportunities when patient sedation is minimal. Coordinate between nursing and respiratory therapy to manage SAT and SBT, perform daily assessment or readiness to wean and extubate.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. Establish a process for timely physical and occupational therapy evaluation for patients on ventilator support to establish a plan for progressive mobility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. Manage delirium by assessing patients for delirium at least once daily. Sedation should be goal oriented and should be administered, as ordered, by the physician according to a scale such as Richmond Agitation Sedation Scale (RASS).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

