



June 25, 2012

Department of Health and Human Services Office of Healthcare Quality 200 Independence Ave, S.W., Room 711G Washington, D.C. 20201 Attention: Draft National HAI AP

Dear Sir or Madam:

The Society for Healthcare Epidemiology of America (SHEA) and the Association for Professionals in Infection Control and Epidemiology (APIC) are pleased to once again have the opportunity to review and provide comments on the draft HHS National Action Plan to Prevent Healthcare-Associated Infections Phase 2 modules including Ambulatory Surgical Centers (ASCs), End-stage Renal Disease (ESRD) Facilities, and Influenza Vaccination of Healthcare Personnel.

SHEA and APIC believe that prevention of healthcare associated infections (HAIs) in the ASC and ESRD settings is a critical topic that warrants focused attention. We are generally very supportive of the goals and recommendations contained within the ASC and ESRD modules of the Action Plan and we look forward to our continued work with HHS and other stakeholders to implement the recommendations.

We also commend HHS for its continued attention to the topic of influenza vaccination of healthcare personnel (HCP) as part of Phase 2 of the Action Plan revisions. We believe that the document makes a strong case for HCP influenza vaccination as a core patient and worker safety practice and hope that it will ultimately help increase vaccination rates. We are concerned about the lack of endorsement of mandatory HCP influenza vaccination programs and the relatively prolonged timeline to reach the stated vaccination coverage goal of 90%. Our organizations believe that influenza vaccination of HCP is the professional and ethical responsibility of all facilities where health care is delivered to prevent the spread of influenza to patients and other HCP. SHEA and APIC endorse a policy in which annual influenza vaccination is a condition of both initial and continued HCP employment and/or professional privileges.

Our specific comments related to the ASC, ESRD and Influenza Vaccination modules follow in the attached documents.

Sincerely,

Jan E. Patterson, MD, MS President, SHEA

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Michelle Farber, RN, CIC President, APIC

Michelle Garber

#### SHEA/APIC Joint Comments on National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination Phase 2 Revisions

#### **Ambulatory Surgical Centers (ASCs)**

#### **General Comments:**

- 1. As with the previous version of this document, this is an excellent summary of existing information and knowledge gaps regarding prevention of infectious complications associated with ASC procedures.
- 2. This document focuses on Medicare-certified ASCs. What are the strategies for HAI prevention in non-Medicare-certified ASCs? Can data be provided for the number of non-Medicare certified ASCs?
- 3. Care provided in ASCs is diverse. We recommend engaging professional organizations that represent health professionals, e.g. physician specialty organizations and Association for periOperative Registered Nurses (AORN), Ambulatory Surgery Center Association (ASCA), who work in these settings as well as organizations that accredit ASCs, e.g. American Association for Accreditation of Ambulatory Surgery Facilities, Inc. (AAASC), Accreditation Association for Ambulatory Health Care (AAAHC). This would offer an opportunity to better understand the scope of care provided and engage professionals in developing performance metrics that address quality and safety of care. This remains a challenge as care is episodic and follow up for complications may be provided by facilities other than where the initial care was provided.
- 4. Developing outcome metrics for ASCs is a challenge. Ideally energy and resources should be directed to procedures for which there is a higher likelihood of detecting post procedure morbidity. For example procedures such as cataract surgery and endoscopy are high volume but the available literature finds frequency of infectious complications extremely low. For ASCs that perform these therefore greater emphasis and tracking of processes that are consistent with safe injections and infection prevention are more likely to support safe patient care. (see: CDC. Guide to Infection Prevention in Outpatient Settings, 2011) For ASCs that provide more invasive procedures there is some evidence that prescriptions written for antibiotics after the procedure may offer a useful signal for possible surgical site infection (see: Miner AL, Sands KE, Yokoe DS, Freedman J, Thompson K, Livingston JM, Platt R..Emerg Infect Dis. 2004 Nov;10(11):1931-7.
- 5. Detection of SSIs after surgery in the acute care settings has not identified methods that are reliable or valid (see: Petherick ES, Dalton JE, Moore PJ, Cullum N. BMC Infect Dis. 2006 Nov 27;6:170). The same is likely true, if not even more so, for ASC. We recommend engaging CDC and our organizations on this topic and to assess feasibility of SSI detection after the care episode.

#### II. Background

#### Oversight of Medicare-certified ASCs

- 1. Is there any data that can be provided on how often, on average, an ASC is surveyed by an accrediting organization (AO) or State Survey Agency (SSA)? This would provide an opportunity for discussion and focus.
- 2. Regarding the statement about the absence of infrastructure for infection prevention and control in ASCs, is there information that could be provided about why the infrastructure is absent?

#### Data on HAI Risks in ASCs is Lacking

- 1. First paragraph: The discussion correctly points out that much of what we know about ASC-associated infections stems from analysis of outbreaks. Consider including a brief descriptions of examples such as outbreaks of *Serratia*, *Staphylococcus aureus*, *Klebsiella* and *Enterobacter* infections as well as Hepatitis B and C viruses.
- 2. End of the first paragraph: It is stated that over two-thirds of ASCs surveyed were noted to have infection control lapses. Consider including a sentence that provides a summary description of these lapses; for example, "19.4% of ASCs had lapses in adherence of hand hygiene or personal protective equipment use, 28.4% had lapses in medication handling or injection practices, 28.4% had lapses in reprocessing of equipment, 18.8% had lapses in cleaning of high-touch environmental surfaces, and 46.3% had lapses in handling of blood glucose monitoring devices". We recommend CMS develop and engage providers in developing methods to communicate findings from surveys of ASC with a goal aimed at using these findings to improve care in this setting.

#### III. Progress Made

#### ASC Conditions for Coverage to Include Infection Control and Prevention

- 1. The 2008 revisions to the CMS Conditions for Coverage (CfCs) for ASCs aimed at infection prevention are clearly a step in the right direction. The fairly general wording of these requirements, however, makes them open to broad interpretation. For example, could the criteria for adequate "training in infection control and prevention" be more clearly specified to include broad skills such as hand hygiene, isolation and contact precautions, environmental cleaning, sterilization and disinfection, safe injection practices, and device-related infection prevention?
- **2.** Given the substantial limitations of surveillance methods currently used to detect infections following ASC procedures (very nicely summarized in this document), what is meant by the requirement to "prevent, identify, and manage HAIs"?
- **3.** More engagement of providers and infection preventionists/healthcare epidemiologists is encouraged as metrics for structure, process and outcomes are matured for this setting that advance infection prevention.

#### Improved Inspection Frequency and Methodology

- 1. The 120% increase in the number of ASC surveys conducted by SSAs appears to have been largely support by ARRA funding. How will this increased survey frequency be maintained?
- 2. Were all of the many ASCs with condition-level deficiencies identified during the FY2010 and FY2011 surveys able to subsequently demonstrate resolution of those deficiencies, i.e., are they quick fixes or do they require more substantial infrastructure changes?
- 3. Paragraph 3, "Section Two, Infection Control and Prevention Practices Assessment": The first sentence ("This section is based upon evidence-based recommendations...") should be referenced.

#### IV. Remaining Needs and Prevention Opportunities

#### Need for Proactive HAI Prevention at the Clinic Level

- 1. The document states that based on the number of issued citations, there is clearly an educational gap. A description of these lapses (as suggested above) would be useful to delineate educational gaps.
- 2. In addition to education, additional resources dedicated to infection prevention activities are likely to be required by ASCs. For example, high-level disinfection and sterilization of reusable surgical instruments is time-consuming when performed correctly and ASCs may need to allocate additional employee effort to improve reliability of these processes. Consider highlighting this need.
- 3. ASCs will require access to individuals with expertise in infection control and prevention. This will also require dedicated resources. Consider highlighting this need.
- 4. Education and staffing resources alone are trumped without initiatives that promote a proactive patient safety culture. We recommend adding a statement to promote proactive patient safety culture and initiatives.
- 5. Many safe injection practices violations in ASCs can be related to budgetary issues (vial reuse between patients, common flush bags). We recommend adding a statement highlighting this concern and that patient safety in this area must supersede budgetary constraints.

#### Need to Sustain and Expand Improvements in Oversight and Monitoring

1. The document should clarify responsibility for expanded oversight and monitoring, especially since the efforts by CMS will only result in 25% of ASCs being surveyed. Will it fall to the SSAs and AOs, and how will these organizations coordinate and collaborate on these efforts?

- 2. We support the need for a higher level of accountability and reporting (such as scorecards) to promote sustained improvement efforts.
- 3. The document should also provide a plan for non-CMS-certified ASCs.

#### Need to Develop Meaningful HAI Surveillance and Reporting Procedures

- 1. We agree that traditional methods for post-procedure infection surveillance that depend on tracking of infections by the facilities performing the procedures are unlikely to be applicable in the ambulatory procedure setting with the exception of detection of large infectious outbreaks.
- 2. Paragraph 3: "CDC's National Healthcare Safety Network (NHSN), which is currently used in all 50 states..." is somewhat misleading since it implies that all acute care hospitals in those states currently submit SSI data into NHSN and that the state health departments have access to this information. Consider clarifying this statement.

NHSN is currently working to identify standard practices for post discharge surveillance. We encourage coordination with NHSN recommendations and the adoption of NHSN criteria.

#### V. Next Steps: Collaborations for Shared Solutions

### Engage Stakeholders to Facilitate Collaboration and Promote a Culture of Safety

- 1. Bullet #4: "Promoting development and uptake of safe work practices..." We agree with this goal but wonder who will be responsible for promoting this? Using what methods?
- 2. Since physicians are key stakeholders in infection prevention, we suggest a specific bullet statement on collaboration with physicians and mid-level medical providers (e.g. physician assistants and nurse practitioners) to identify risk reduction strategies.

#### Improve and Expand Process Measures

- 1. We believe that it is important to clarify that there is limited data to assess the impact of SSI prevention practices targeted by the CMS inpatient SCIP measures on many of the procedures performed in the ambulatory setting. For example, there is little evidence to support the benefit of antimicrobial prophylaxis for the majority of minor, clean procedures. However, we do agree that when supported by scientific evidence, that infection prevention practices should be applied to similar procedures regardless of the surgical setting.
- 2. Consider adding environmental cleaning and care of MDRO patients to this section.
- 3. Consider adding antimicrobial stewardship and MDRO/*C. difficile* prevention strategies to this section.

4. Consider a statement regarding incorporating ASCs into the Meaningful Use initiative.

### Expand Current Knowledge of Surveillance to Include ASC-Specific Measures and Associated Strategies for Outcomes Measurements

1. We agree that continued and expanded research into SSI and other HAI surveillance methodologies for ASCs should be a priority. We recommend highlighting the importance of providing funding mechanisms to support these research efforts. Candidate metrics such as unplanned admission to an acute care facility for care of complications involving the procedure previously provided in the ASC or prescription of antibiotics may be worth consideration but more research is needed for reliability and reproducibility of same. (see: Kaafarani HM, Rosen AK, Nebeker JR, Shimada S, Mull HJ, Rivard PE, Savitz L, Helwig A, Shin MH, Itani KM.Qual Saf Health Care. 2010 Oct;19(5):425-9; Mlangeni D, Babikir R, Dettenkofer M, Daschner F, Gastmeier P, Rüden H, Am J Infect Control. 2005 Feb;33(1):11-4).

#### **Measurable Goals**

ii. b. There is a typo as follows: "and; and,"

### Table 9. Summary of literature review of surgical site infection surveillance practices conducted in non-acute care settings

- 1. When sensitivity and specificity are mentioned, what is the gold standard comparator?
- 2. The row starting with "Claims data algorithm incorporating..." Under the "potential disadvantages" column, we recommend deleting "application in a limited, managed care type setting where patients follow up in the same system that they received operative treatment". Use of claims data for surveillance would NOT be limited to single healthcare systems since claims are generated for care received, regardless of the location that care. For example, a hospitalization resulting from infectious complications following a procedure performed at an ASC would result in claims submitted to that patient's healthcare payer (e.g., CMS), regardless of that hospital's affiliation. We also recommend changing "poor sensitivity" to "variable sensitivity of diagnosis codes alone, depending on procedure type" since diagnosis codes alone had high sensitivity for specific procedure types (e.g., total hip and knee arthroplasty).

#### **End-Stage Renal Disease Facilities**

### General Comments are found below. See attached document for additional specific comments on the ESRD section.

#### **General Comments:**

1. SHEA and APIC are supportive of comments on public reporting and unintended consequences (page 171); NHSN (page 173); need for single set of specifications, standard analytical methods and common strategies for translating data (page 174); and antimicrobial selection and stewardship (page 175).

- 2. We continue to support use of CDC's NHSN Dialysis event for surveillance of complications of dialysis. One aspect that will be important for HHS to address is given the relatively recent enrollment of Dialysis centers there likely will be a lag between entry of DEs for many of these and establishing baseline data against which progress will be measured. Therefore we recommend CMS and CDC collaborate and address this issue before establishing national targets.
- 3. We are sorry to see that prior comments regarding denominator for Hepatitis B Virus (HBV) vaccine coverage and the terminology "vascular access-associated" rather than "vascular access-related" infections were not adopted/addressed in this revision.
- 4. We are pleased that there is now a regulatory endorsement of periodic Hepatitis C Virus (HCV) testing of dialysis patients that will drive adoption. However, it should be noted that the optimal frequency of HCV Ab testing (every 6 vs. 12 months) has not been defined.
- 5. There are several recommendations in the Healthcare Infection Control Practices Advisory Committee Guideline for Prevention of Intravascular-Related Infections, 2011, that pertain to ESRD population. We recommend HHS review these and share these with professionals across the ESRD network (see: O'Grady NP, Alexander M, Burns LA, Dellinger EP, Garland J, Heard SO, et al. Am J Infect Control. 2011 May;39(4 Suppl 1):S1-34.)

#### II. Background

The paragraph at the bottom of this page speaks to what facilities this document "concentrates on". While there is a good case built for the spirit of the recommendations including all care providers at all levels to help with infection prevention, there needs to be total clarity on who this plan is directed to, particularly when it comes to data submission. In this paragraph, there are two sentences that are not totally consistent: "...this chapter concentrates on HAI prevention and reduction recommendations for ESRD patients who regularly receive hemodialysis (HD) in an outpatient dialysis facility" Then two sentences later ".....refers to those facilities which provide hemodialysis treatment for ESRD patients on a regular basis." The difference is subtle; however, it creates the potential for confusion. We recommend that the same language be used consistently. There may also be a need to differentiate between acute dialysis and chronic dialysis.

#### III. Healthcare-Associated Infection in ESRD

#### B. Pathogenesis and C. Vascular Access

These sections do not address the potential role of patient hygiene and care of vascular access in the risk and early identification of vascular access related infection. Consider including a priority recommendation for annual provision of patient education about general hygiene and personal care and maintenance of dialysis catheters and ateriovenous fistulas/grafts.

#### IV. Prevention Priorities Recommendations in ESRD Facilities

#### C. Priority Recommendations.

#### 1. Prevention of Intravascular Infections

## Priority Module 2 Recommendations for Aseptic Insertion of Vascular Catheters, and Priority Module 3 Recommendations for Appropriate Maintenance of Vascular Catheters

The prevention of intravascular infections focuses solely on intravascular catheters, and the recommended practices for catheter insertion and maintenance were derived largely from studies of non-tunneled central venous catheters. Maximal sterile barrier precautions apply to the insertion and guidewire exchange of non-tunneled central venous catheters used temporarily for hemodialysis. The use of tunneled central venous catheters is far more prevalent in the maintenance hemodialysis patient population. These tunneled CVCs, like AV fistulas and grafts, are placed under sterile conditions in an operating room and they cannot be changed over a guidewire. CHG-alcohol, although it has not been shown definitively to reduce the risk of tunneled dialysis CVC-associated infection compared to other antiseptics, may well be the preferred agent for skin prep during insertion of this catheter type.

There are no priority recommendations for skin antisepsis before cannulization of AV fistulas and grafts, more prevalent access types than tunneled/non-tunneled dialysis CVCs.

The 2006 National Kidney Foundation Kidney Disease Outcome Quality Initiative (NKF KDOQI) Vascular Access Guideline update Table 2 states clean the skin with either CHG-70% isopropyl alcohol OR 10% povidone iodine. Consider including a recommendation for AV fistula/graft skin preparation in the priorities to prevent vascular access infections.

#### Priority Module 3

A statement regarding use of a chlorhexidine-alcohol product during dressing changes should be added under this module. Currently, this is mentioned only under Priority Module 2 which is intended to address vascular catheter insertion.

As currently written, the first two bulleted points are somewhat overlapping in content and might better reflect the intent of the document if the second bullet point was changed to:

• "Thoroughly clean and disinfect medical equipment (including hemodialysis machines) on a regular basis using EPA-registered disinfectants in accordance with manufacturer's instructions."

In the first bullet, we would recommend "**annual** education of healthcare personnel...". In the third bullet, we would recommend "**Annually** assess knowledge of and adherence to ..." rather than "periodically."

#### C. Priority Recommendations

#### 1. Prevention of Intravascular Infections

### Priority Module 3 Recommendations for Appropriate Maintenance of Vascular Catheters

4th bullet: We recommend addition of language "assess for need and promptly remove any intravascular catheter...." if in keeping with references. "Assessing for need" is consistent with other bundles.

#### 2. Prevention of Bloodborne Pathogen Transmission

### Priority Module 1 Recommendations to Prevent Hepatitis B Virus and Hepatitis C Virus Infections

We support the inclusion of a recommendation for baseline and periodic screening of susceptible patients for HCV antibody. Given the limitations of the screening antibody test for detection of HCV antibody, we suggest the additional recommendation that patients who screen positive for HCV antibody receive confirmatory antibody testing by RIBA or nucleic acid amplification.

The most appropriate and cost-effective frequency for the periodic screening of patients receiving maintenance hemodialysis for HCV antibody has not been defined and should be an area for future research. KDOQI US recommend that "for patients on HD therapy who test negative for HCV, retesting every 6 to 12 months with Enzyme-immunoassay (EIA) should be considered. (Moderate) Gordon CE, Balk EM, Becker BN, et al. KDOQI US commentary on the KDIGO clinical practice guideline for the prevention, diagnosis, evaluation, and treatment of hepatitis C in CKD. *Am J Kidney Dis.* 2008;52(5):811-825. CDC recommends testing for anti-HCV every 6 months should be sufficient to monitor the occurrence of new HCV infections. CDC (Recommendations for preventing transmission of infections among chronic hemodialysis patients. *MMWR*. 2001;50(RR-5).

#### V. Metrics and Evaluation

#### Table 10. Five-Year National Metrics and Evaluation Targets

There are published national-level rates of vascular-access infection for AV fistulas and grafts and current data from the CDC/NHSN Dialysis Module that could be used to establish baseline access- associated bloodstream rates and set 5-year reduction targets for these access types. Please see our general comments about this module and use of this data for baseline establishment.

#### Hepatitis B vaccine coverage in hemodialysis patients

To give a more accurate measure of success in appropriately immunizing HBV susceptible patients, the appropriate denominator should be "all HBV susceptible patients" and not all hemodialysis patients. Because the HBV vaccine schedule for hemodialysis patients differ for

the two commercially licensed vaccines (Recombivax, 3 doses at months 0, 1 and 6; Engerix, 4 doses at months 0,1,2, and 6), we endorse the use of the numerator # of hemodialysis patients who have ever received > or = to 3 doses of hepatitis B vaccine. In the explanatory text for this metric, it should be clarified that the doses of HBV vaccine should be administered at appropriately timed intervals.

#### VI. Incentives and Challenges

#### A. Incentives

#### ii. State/Network Level

Shouldn't the CMS measures be addressed under A i Federal Level? With regard to the CMS measure, PY should be defined. (Is it Payment Year?) It should also be clarified that the enrollment, training, and reporting requirements are effective as of 2012.

#### B. Challenges

#### iii. Patient Level

As acknowledged, currently there are a lack of education programs that are geared to teaching dialysis providers the fundamentals of infection prevention and control as well as the skills needed to detect, report, and prevent vascular access associated infections. Consider including a priority recommendation for annual training of facility staff in the basics of

infection control and injection safety. Current efforts of DHQP to develop an infection control curriculum geared towards ambulatory healthcare providers could be adapted for this purpose.

#### VII. Information Systems and Technology

#### A. Resources

The third paragraph states that participation in NHSN is voluntary. This is not accurate given the CMS expectations for enrollment, training, and reporting beginning in 2012.

#### B. Integration of Systems

We suggest that HHS address the future requirements for ESRD reporting at the CMS level.

We welcome the use of NHSN surveillance definitions and architecture for reporting dialysis associated infectious events. The planned integration of the CDC and CMS informatics systems must insure that there is efficient capture and integration of electronic health information both from the dialysis facilities and from hospitals and laboratories where dialysis patients are evaluated. Accurate estimation of the device-specific rates of vascular access associated infection and measurement of progress towards the five-year reduction targets depends upon improving ascertainment and reporting of vascular access associated infections diagnosed both in and outside of the dialysis facility.

#### VIII. Future Directions

#### **B.** Research Directions

#### i. Antimicrobial resistance

We recommend inclusion of a statement such as: "Further study regarding the prevention and transmission of infection with multidrug-resistant organism in ESRD patients is needed."

#### IX. Summary of Recommendations

#### Recommendation #5: Metrics and Evaluation

Third bullet

We suggest the following verbiage:

 "Recommend continued coordinated efforts between HHS and experts in the ESRD, infectious disease and infection prevention communities to establish standardized definitions."

#### **Influenza Vaccination of Healthcare Personnel**

SHEA and APIC commend HHS for focusing on an important patient and healthcare Personnel (HCP) safety topic, the prevention of influenza through HCP vaccination. Influenza vaccination is an effective tool to prevent laboratory-confirmed influenza infections, particularly in healthy adults during seasons with a close match between vaccine and circulating strains. When combined as part of a comprehensive infection control program designed to identify and isolate infectious persons while using work practice controls to reduce the risk of influenza transmission, vaccination of HCP serves several purposes: (1) to prevent transmission to patients, including those with a lower likelihood of vaccination response themselves; (2) to reduce the risk that the HCP will become infected with influenza; (3) to create "herd protection" of both HCP and patients unable to receive vaccine or unlikely to respond with a sufficient antibody response; (4) to maintain a critical societal workforce during disease outbreaks; and (5) to set an example concerning the importance of vaccination for every person. Unfortunately, despite tremendous efforts to promote HCP influenza vaccination, influenza vaccination rates among HCP remain unacceptably low.

The focus of the National Action Plan on HCP Influenza Vaccination is an important step towards improved HCP vaccination coverage.

The introduction and background of the document make a strong case for HCP influenza vaccination as a core patient and worker safety practice. The document nicely summarizes the evidence related to factors that contribute to current vaccination rates--factors that will likely continue to play a role as long as influenza vaccination remains an optional strategy

for all facilities where health care is delivered. We are hopeful that the increased attention and efforts by HHS on improving HCP influenza vaccination will help increase vaccination rates, thus serving to better protect patients and HCP.

### Specifically, we would like to commend HHS on several points related to this portion of the Action Plan:

- 1) The comprehensive evaluation of HCP vaccination via the interagency working group.
- 2) The use of HCP influenza vaccination rates as a publically-reported measure of healthcare quality (page 196).
- 3) The call for professional organizations to have explicit policies re: influenza vaccination of HCP (page 199).
- 4) The move of The Joint Commission (TJC) to expand their standards especially with the setting of specific targets. We would encourage alignment of these efforts with the HHS goals/targets (page 200).
- 5) The plan to focus on HCP vaccination coverage in non-acute setting, such as long term care facilities (page 202).

We would also respectfully challenge HHS on a few key points of the Action Plan; specifically, we would like to highlight the lack of endorsement of mandatory HCP influenza vaccination programs and the relatively prolonged timeline to reach the stated vaccination coverage goal of 90%.

We believe that evidence is mounting to support the need for mandatory vaccination programs, as the fact that when success is defined as having 90% or greater vaccination rates, only programs that mandate HCP influenza vaccination typically achieve that success. APIC and SHEA, consisting of leaders in the fields of infectious diseases, infection prevention and healthcare epidemiology, have endorsed the need for mandatory HCP influenza vaccination and are part of a growing number of professional groups that have endorsed such a position (see Table below). In addition, an increasing number of hospitals and healthcare systems have implemented mandatory HCP influenza vaccination programs, including the Hospital Corporation of America (HCA), BJC Healthcare, and MedStar Health. A recent survey found that nearly 25% of hospitals surveyed (n=183/753) reported institutional requirements for influenza vaccination that imposed consequences for vaccine refusal (such as mask wearing or termination of employment). In addition, a quarter of all children's hospitals in another national survey had mandated influenza vaccine by the end of the 2009-10 influenza season.

In all published instances, mandatory vaccination has been shown to result in markedly increased vaccination coverage with rates at or above the goal of 90%. <sup>1-3, 6-8</sup> In addition, the reported number of HCP whose employment was terminated as a result of vaccine refusal related to such policies has been minimal. When the National Vaccine Advisory Committee (NVAC) recently examined the issue of HCP influenza vaccination, the group noted that "requirements for influenza vaccination are the most effective mechanism to rapidly reach and maintain the Healthy People 2020 goal." While the group stopped slightly short of calling for mandatory programs, they did note that such a program be "strongly considered" in the event target rates of 90% were not achieved with a voluntary, multifaceted program, a recommendation endorsed by majority of the working group tasked with developing the recommendations (83%). <sup>10</sup>

Organizations Supporting Mandatory HCP Influenza Vaccination
American Academy of Family Physicians (AAFP)
American Academy of Pediatrics (AAP)
American College of Physicians (ACP)
American Hospital Association (AHA)
American Medical Directors Association (AMDA)
American Pharmacists Association (APhA)
American Public Health Association (APHA)
Association for Professional in Infection Control and Epidemiology (APIC)
Department of Defense (DoD)
Infectious Diseases Society of America (IDSA)
National Business Group on Health
National Patient Safety Foundation (NPSF)
Society for Healthcare Epidemiology of America (SHEA)

APIC and SHEA urge HHS to endorse mandatory annual influenza vaccination of HCP, as a core patient safety practice. It is the professional and ethical responsibility of HCP and the institutions within which they work to prevent the spread of infectious pathogens to their patients through evidence-based infection prevention practices including influenza vaccination. **Therefore, for the safety of both patients and HCP, SHEA and APIC endorse a policy in which annual influenza vaccination is a condition of both initial and continued HCP employment and/or professional privileges.** The implementation of this policy should be part of a multi-faceted comprehensive influenza infection control program with full, visible leadership support and ample resources to implement and sustain the program. This recommendation applies to all HCP working in all healthcare settings, regardless of whether the HCP has direct patient contact or whether the HCP is directly employed by the facility. It also applies to all students, volunteers, and contract workers. We recommend that only exemptions due to recognized medical contraindications to influenza vaccination be considered.

SHEA and APIC also strongly endorse the commitment to achieving a high (90% or greater) rate of HCP vaccination, but believe that the proposed pace of improvement (70% by 2015, 90% by 2020) is too slow. Protection of a population against a contagious pathogen can be achieved only when herd immunity is achieved. Thus, the faster we move towards this goal, the sooner patients and HCP will be better protected against healthcare-associated influenza. We would therefore ask that the interim goal of 70% recommended by the working group be reconsidered, and perhaps the group could move to a more aggressive target such as 80% by 2015 and >90% by 2017. We also urge HHS to alter their perspective on the goal of 90% vaccination coverage, termed "aspirational" (page 203) in the document. This terminology sets expectations to fall short of attainment, and previous vaccination coverage goals like this one that some would have called "aspirational," such as attaining rates of 60% by 2010, were clearly achievable.

In summary, the best preventive measure against healthcare-associated influenza is the use of a safe and effective influenza vaccine in combination with a robust infection prevention program. SHEA and APIC strongly believe that HHS must endorse a policy that requires all HCP without a valid medical contraindication receive an annual seasonal influenza vaccination. Not only is annual, seasonal influenza vaccination a core patient and HCP safety practice, it is also an ethical and professional responsibility of HCP to prevent the spread of influenza to patients and others.

#### **Additional Specific Comments:**

- **Introduction:** We encourage HHS to clearly state the intent of the chapter: i.e. to promote support and engagement with the efforts of the HHS Interagency Workgroup to increase HCP influenza immunization compliance.
- **Page 188:** We recommend adding dialysis facilities to the list of specific types of healthcare facilities noted in section II.A. given the vulnerable patient population who receive care in these centers.
- **Page 189:** We recommend adding the growing list of professional societies who have now called for influenza vaccination as a condition of employment (see table above) and contrast this with the few number of organizations who oppose such a position. Of note, this list includes every major infectious disease and infection control society in the United States as well as several of the largest physician-focused societies in the country (e.g. ACP, AAP).
- Page 192: We would encourage HHS to add in the section on vaccine effectiveness the data from the recent paper that suggests that HCP have an increased personal risk for contracting influenza by nature of their occupation. While the increased risk for contracting influenza by HCP has often been postulated, this study is the first to confirm such increased risk by nature of a HCP occupation and helps support the rationale for influenza vaccination for personal protection of HCP.
- **Page 194:** We commend HHS for adding detail regarding strategies that have led to improved HCP vaccination rates. We would stress that the **MOST** successful programs are usually mandatory and that non-mandatory programs reaching vaccination rates over 90% are the exception, not the rule. In addition, we would add the following strategies to the list:
  - Ongoing feedback to administration, physicians and staff on compliance rates throughout the vaccination season to help promote improved compliance.
  - Organizational culture that supports patient safety initiatives such as influenza vaccination for all HCP.
- **Page 197:** As noted above, we endorse the formation of the Interagency Working Group to address low HCP influenza vaccination coverage. SHEA and APIC offer our member expertise to the group as needed.
- **Page 198 Working Group Tasks:** We believe that the first three listed tasks (evidence, review and gaps in knowledge) have already been completed by the groups referenced earlier in the document and others, and to repeat such efforts may not be the best use of the Working Group's time. Instead, we would endorse moving directly to tasks 4 and 5 (assessing the impact of policy changes and aligning data collection systems to track immunization rates), as these tasks would greatly benefit from the Working Group members' insight. We would also suggest adding to the

fourth task on assessing policy impact a subsection on assessing the impact of mandatory programs on organizational culture, professional morale and staff retention.

#### REFERENCES

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- 2. Karanfil LV, Bahner J, Hovatter J, Thomas WL. Championing patient safety through mandatory influenza vaccination for all healthcare personnel and affiliated physicians. Infect Control Hosp Epidemiol 2011;32(4):375-9.
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- 4. Miller BL, Ahmed F, Lindley MC, Wortley PM. Increases in vaccination coverage of healthcare personnel following institutional requirements for influenza vaccination: a national survey of U.S. hospitals. Vaccine 2011;29(50):9398-403.
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- 11. Kuster SP, Shah PS, Coleman BL, et al. Incidence of influenza in healthy adults and healthcare workers: a systematic review and meta-analysis. PloS one 2011;6(10):e26239.

# SHEA/APIC Joint Comments on National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination Phase 2 Revisions

#### **End-Stage Renal Disease Facilities**

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
p. 153	Last paragraph, first sentence	"Although it is recognized that HAIs are a significant issue for ESRD patients who receive the majority of their treatment in home settings	Although it is recognized that HAIs are a significant issue for all ESRD patients including those receiving peritoneal or hemodialysis treatments in the home setting, this chapter focuses on HAI prevention and reduction recommendations for ESRD patients who regularly receive hemodialysis in an outpatient dialysis facility.	The way it is written could be misleading because it implies that most ESRD patients receive their treatment in the home.  Proposed rewording to clarify.
p. 154	1 <sup>st</sup> paragraph			This looks good, identification and elaboration on who is involved as the care team and stakeholders is critical. The need to support multi-dimensional collaboration across the continuum of care needs to be consistent throughout the action plan. We like the acknowledgement that this is a "living document" with room to "evolve". This presents significant opportunities for professional organizations like APIC and SHEA to further shape and support the Action Plan.
р. 154	III. A. 3 <sup>rd</sup> line	the total death rate due to infection is 76 per 1,000 patient days	,the total death rate due to infection is 76 per 1,000 patient <i>years at risk</i>	The denominator used in the USRDS report is per 1,000 patient years at risk not per 1,000 patient days.
р. 154	B. Pathogenesis Last sentence	"environmental surfaces, equipment, or supplies and from the hands of the manyencounter"	Omission:the document does not address in any depth these risks.	This is an important part of the "prevention priority implementation bundles" mentioned in the Executive Summary, p. 18. However, there is no language on hand hygiene in the recommendations on this or following pages. Little is said about

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
rumber				cleaning and disinfection.
р. 156	C. Vascular Access, 2 <sup>nd</sup> paragraph, last sentence	"Emphasis and incentives forshould be high priorities in this arena"	Suggestions for more detail to the area of CVC maintenance practices	STRONGLY AGREE  Specific content about CVC maintenance is quite lean in the document.
р. 156	D. Viral Hepatitis Last paragraph, line 9-10	In 2002, 27.3 % of centers reported one or more patients with HBV infection and 2.8 % of facilities reported one or more patients with new infection.	Is there a more current source of data? This is a less prevalent disease today than a decade ago.	Review of sources and reference show a dearth of current information about prevalence. Burdick et al found mean prevalence only 3.0% and a median of 1.9%  Kidney International (2003) 63, 2222–2229; doi:10.1046/j.1523-1755.2003.00017.x
р. 158	A. Overview, Paragraph 1, line 5	ACIP	Spell out The Advisory Committee of Immunization Practices	Clarity and consistency
p. 158	B. Methods, Paragraph 2, line 1-2	Of note, it is recommended that these prevention priorities be supported by a facility-level program of ongoing training, performance tracking, and quality assurance	Deserves more elaboration and emphasis	STRONGLY AGREE Emphasis in document upon leadership is too lean. Leadership strategies are essemtial to launch and support change.  See also: the Executive Summary p. 11 Clinical Leaders, Executives, and Administrators)
р. 159	C. Priority Recommendations, 1. Prevention of Intravascular Infections. Paragraph 1, last sentence	Therefore priority recommendations in this category are primarily focused upon patients with CVCs.	The priority recommendations in this category are separated into central line insertion practices, central line maintenance practices, and practices to insert and prevent infection in AVFs and AVGs.	For the purposes of clarity and usefulness, please consider re-organizing this information; include detail on prevention in AVF and AVG related infection.  Suggest replacing 3 Priority Modules with sections devoted to the 2 major types of vascular access, i.e. central venous catheters and surgically created AVF/AVGs.
р. 159	C. Priority Recommendations 1. Prevention of Intravascular Infections	primarily focused upon patients with CVCs.	Although it is mentioned that the priorities are focused at CVC's we believe the priority recommendations should also include practices for	Many of the effective care interventions for AVF/AVG are similar to what needs to be done for CVC's, these should be bundled together.  There is the risk if these are not mentioned they will be excluded as an area for concern. This is a missed opportunity to spread improvement a little further with

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
Number			AVG/AVF access and care.	little additional effort.
p. 159	C. Priority Recommendations, 1. Prevention of Intravascular Infections (Module 1)	Priority Module 1 – Selection of Vascular Access Use a fistula or graft instead of a CVC for permanent access for hemodialysis. HICPAC Category IA; NKF KDOQI	Omission: Elaborate on how to accomplish this	The document does not include reference to effective strategies i.e. How to coordinate an interdisciplinary approach.
p. 159	C. Priority Recommendations, 1. Prevention of Intravascular Infections (Module 2)	Priority Module 2 – Recommendations for Aseptic Insertion of Vascular Catheters	Include information on the insertion of AVF and AVG. Include what is relevant to renal dialysis CVCs – for example a higher risk catheter type or location (i.e. temporary vs. tunneled catheters and the risk of a femoral catheter).	Information should be relevant to the specific needs of the ESRD patient population.
р. 159-160	C. Priority Recommendations, 1. Prevention of Intravascular Infections (Module 3) Bullet 5	Priority Module 3 – Recommendations for Appropriate Maintenance of Vascular Catheters (comments on bullets 5, and 6) 5. "antiseptic ointment at the hemodialysis catheter exit site after catheter insertion and at the end of each dialysis session"	Agree with bullets, except as noted.  Bullet 5: Apply bacitracin/gramicidi n/polymixin B ointment or povidone-iodine ointment to catheter exit sites during dressing change OR use a chlorhexidine-impregnated sponge dressing.	Although published guidelines vary, the CDC Dialysis Infection Prevention Collaborative participating centers have seen a decrease in infection rates following standardized care and maintenance practices.  http://www.cdc.gov/dialysis/PDFs/collaborative/Dialysis-Core-Interventions-rev 08 23 11.pdf  Regarding bullet 5: the ointment or CHG dressing (ex:Biopatch) is put on after the dressing is changed, and not necessarily at the end of each dialysis.
p. 160	C. Priority Recommendations, 1. Prevention of Intravascular Infections (Module 3) Bullet 6	Scrub the catheter access port with an appropriate antiseptic (chlorhexidine, povidone-iodine, or 70% alcohol) prior to accessing and access	Cleanse catheter hubs with an appropriate antiseptic after the cap is removed and before accessing.	Unlike CVC's used in other settings, hemodialysis catheters are usually maintained without an attached access valve/port. Standard practice is to maintain a closed system using non-valved caps attached to the hub. Caps are removed and discarded for each session, appropriate disinfection of the hub after

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
Number		the port only with sterile devices. HICPAC Category IA		cap removal is essential. See recommended practices: <a href="http://www.cdc.gov/dialysis/PDFs/collab-orative/Protocol-Hub-Cleaning-FINAL-3-12.pdf">http://www.cdc.gov/dialysis/PDFs/collab-orative/Protocol-Hub-Cleaning-FINAL-3-12.pdf</a>
				Although mentioned, more emphasis regarding the importance of appropriate hand hygiene and glove use is recommended; these are truly the cornerstone of infection prevention and control efforts in all hemodialysis centers.
p. 161	2. Prevention of Bloodborne Pathogens, Priority Module 1. Bullet #5	Perform baseline HCV antibody screening of patients and repeat biannually for susceptible patients to identify new HCV infections	Perform baseline HCV antibody screening of patients and repeat every 6 months for susceptible patients to identify new HCV infections	For clarity regarding frequency – i.e., some persons may think biannually is every 2 years vs. every 6 months.
p. 161	2. Prevention of Bloodborne Pathogens, Priority Module 1. Bullets 6-7	Offer hepatitis B vaccine to healthcare personnel to protect staff and conduct bloodborne pathogen training	Omit	Though extremely important, reducing risk of healthcare workers to acquire HBV is not included the stated purpose on p. 152, sentence 1 "the purpose is to identify and prioritize efforts of HAIs in ESRD patients.
р. 161	Priority Module 3		Omission: handling of waste	Containment and disposal of contaminated waste is an issue of concern in dialysis units as it can be a vehicle for transmission of bloodborne pathogens.
p. 161	Priority module 3		Omission: cleaning and disinfection of patient stations only after the patient has been removed from the treatment chair.	Cleaning the patient's machine and area while the patient is still in the treatment chair is felt by many to be not a best practice. A corollary of this recommendation may be from AORN recommendations regarding cleaning the surgical suite only after the patient has left the OR.
p. 161-162	Priority Module 3, bullets 1-3	After each patient treatment, clean and disinfect environmental surfaces at the dialysis stationprime waste containers.	After each patient treatment, clean and disinfect environmental surfaces within the patient zone, The zone includes the dialysis treatment chair, the dialysis machine, and all	Priority Modules 1, 2, and 3 are equally important to decrease transmission of other HAIs such as VRE and MRSA as they are to prevent bloodborne pathogens.  Suggest expanding the number of surfaces for which environmental cleaning is recommended. Bullet 2 on p. 162 speaks to "medical equipment surfaces on a regular" basis, but this is not specific enough.

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
Number			surfaces touched directly by the patient or potentially contaminated during the care of the patient (for example, keyboards, hoyer lifts, wheelchairs, etc.).	Recommend inclusion of any surfaces that are adjacent to and potentially contaminated with patient flora.  The term "patient zone" (from World Health Organization's 5 Moments for hand Hygiene) may also be helpful to describe any potentially contaminated area that requires cleaning and disinfection between patients.
p. 162	4. Prevention Priority Implementation Bundles, Paragraph 1, line 9	Examples of infection control protocols which could be presented in —bundle format include steps for catheter maintenance, environmental cleaning, and methods for conducting HAI surveillance and reporting.	Omission: Refer reader to examples of successful bundles.	Examples given are vague; does one incorporate all listed into one bundle, or if this refers to separate bundles? CDC has one example online:  http://www.cdc.gov/dialysis/PDFs/collaborative/Dialysis-Core-Interventions-rev 08 23 11.pdf
p. 163	Education and Training, paragraph 3	Language focuses on colleges and university training	Omission: Primarily focus on changing the culture of safety within the department	Suggest incorporation of Positive Deviance or other published strategies to improve the culture of safety WITHIN the department as well as training prior to entry to practice (i.e. university setting). http://www.cdc.gov/mmwr/preview/mmwrhtml /mm6110a2.htm  Gemma Downham, MPH, Erin Jones, Pamela Peterson, MBA, M. Yaser Mourad, MD, AtlantiCare Regional Medical Center, New Jersey. Curt Lindberg, DMan, Billings Clinic, Montana. Priti R. Patel, MD, Alexander J. Kallen, MD, Div of Healthcare Quality Promotion, National Center for Emerging and Zoonotic Diseases, CDC
p. 164	Table 10. Recommended Metrics, Row 1 All Bloodstream Infections stratified by access type.	1. Pooled mean < or = to 5.0 OR *RIR > or = 40%	Include this metric but do not include a rate, keep the national improvement metric only  1. RIR > or = 50%	Although these measures are intended as national goals, there may be unintended consequences if facilities are held to these metrics.  We recognize that this metric can be collected relatively easily with accuracy. However because this includes all positive blood cultures including those secondary to other sites of infection (pneumonia, UTI, skin etc.) and contaminated specimens we recommend that a rate not be used as an evaluation target. We feel the more valuable evaluation target for this metric is the RIR alone.

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
р. 164	Table 10. Recommended Metrics, Row 2 Access-Related Bloodstream Infections stratified by access type. CVC only	1. RIR > or = 50%	<ol> <li>RIR &gt; 50%         rate OR</li> <li>Pooled mean &lt;         or = to &lt; 3.0         per 100 patient         catheter months.</li> </ol>	This metric is more sensitive to the interventions focused at prevention of access related BSI's in hemodialysis centers. In addition, it offers meaningful data for internal improvement. Although we suggest 3.0 as an evaluation target, it may be best to assign a target value in the future based on NHSN data. From our experience with using data to drive change at the bedside this is the metric that has been the most meaningful to multidisciplinary cross organizational teams, administrative leadership as well as staff members.
p. 166	2 <sup>nd</sup> row: Facilities reporting to NHSN either manually or electronically or via data interoperability mechanism with CMS	Column 3: Greater or equal to 90%	Column 3: Greater or equal to 99%	We feel that 99% would be feasible. Where would the 10% outliers fall?
p. 166	3 <sup>rd</sup> row: Any CVC use in patients on hemodialysis	Column 3: Absolute target is less than or equal to 20% or RIR greater than or equal to 20%		Agree with this: It is important to incentivize the process of an interdisciplinary and case management group to facilitate this process which may take a long period of time yet ensure the best access for each patient.
p. 166	Row 4 Screening for Hepatitis C antibody	Column 2: "biannual" and a 70% goal	Replace the word "biannual" with every 6 months Increase goal to 90%	Incentivize the goal of HCV testing as this is a more prevalent issue than hepatitis B in renal dialysis units.
p. 166	Row 5: Hepatitis B vaccine coverage	Columns 2-3 Increase to 90% the number of patients who have received at least 3 doses of HBV vaccine.		It is unknown how many patients start the series and are unable to complete the 3 doses due to death, transplant, moving, etc. These would need to be excluded from the metric.
p. 168	A. Process Measures	patients biannually for hepatitis C antibody	Replace the word "biannual" with every 6 months	Avoid confusion with use of biannually
р. 169	i. Federal Level, paragraph 3	powerful lever for adherence to infection prevention priorities and should		Strongly agree with this statement. Standardization in practices across organizations using credible guidelines is a very powerful method to gain

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
Number		be used as such.		improvement.
p. 170	Challenges, b. State and Local Health Departments	For many health departments, outpatient dialysis providers remain a nontraditional partner and effective relationships have been more challenging to establish.		Strongly agree with this statement. This is an accurate description of a significant challenge. A collaborative approach to improvement is key. Without effective relationships the freestanding outpatient ESRD clinic may not be motivated to engage in improvement activities.
p. 171	Challenges, ii. Facility/ Provider Level, 1 <sup>st</sup> paragraph.	"typically lack dedicated resources for infection prevention and rarely have on-site personnel with infection prevention expertise. The ability to implement certain infection control practices can be hindered by financial pressures, staffing constraints, and lack of a clear understanding of and training in appropriate infection prevention practices."	Omission – stress setting infection prevention as an organizational priority.	This is a fundamental challenge. If this challenge remains, change and improvement will be a struggle. Those organizations currently reporting low and/or improved infection rates have multiple common factors including infection prevention leadership, effective surveillance, administrative support and expertise with effective staff education. Infection prevention must become part of the organization strategy held at a high priority. Although this issue is emphasized in the executive summary it is not described in the Action Plan.
p. 171	Challenges, ii. Facility/ Provider Level, Sections b. and c.			Strongly agree with the challenging issues described. However specific strategies to address these issues are not clearly stressed in the Action Plan. The Executive Summary however does a good job of outlining actions.
p.171-172	Challenges, ii. Facility/ Provider Level, Section d.	"lack of clarity in a standardized definition"		Agree that standardizing a definition would be helpful; however there are likely to be unintended consequences in attempting to have one definition that applies to surveillance, quality, reimbursement and clinical care.
p. 172	Challenges, ii. Facility/ Provider Level, Section e.	"Collecting and reporting data,"	Omission	Additional challenge to having the data be "actionable" is dissemination, understanding and interpretation by leadership and staff.

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
p. 172	Challenges, ii. Facility/ Provider Level, Section f.	"Improving the culture of safety in ESRD Facilities is necessary"	Omission – consider further emphasis	This is somewhat of a cliché but obviously enormously important. It would be nice if there was additional information regarding effective strategies here.
p. 172	iii. Patient Level, section a.	"Focus on directly involving patients in their care, through education efforts"		Strongly agree with this opportunity to leverage the patient as an advocate.
p. 174	B. Integration of Systems	"Integration of CDC and CMS systems"		Recommend inclusion of APIC and SHEA during CDC and CMS discussions.
p. 174-175	Future Directions Emerging infections	This section did not recommend a specific focus on preventing and reducing VRE at this time.	Omission: consider adding recommendations regarding VRE	VRE is a prevalent organism in outpatient renal dialysis, probably exceeding MRSA in most centers. There is some evidence that the prevalence of MRSA infections is decreasing, particularly when the incidence of access-related infections have been reduced.
p. 175	Emerging Infections	"peritoneal dialysis"		Strongly agree with this suggestion; there are no standardized definitions for surveillance or national reporting protocols.
p. 176	B. Research Directions	"ii. Prevention through access care"		Strongly agree. As participants in the CDC Dialysis BSI Prevention Collaborative we believe focusing on "prevention through access care" has been "low hanging fruit," enabling many participants to significantly reduce their access –related BSI rates. Many collaborative participants are now examining more closely their practices associated with fistula access. One significant challenge to research is that most centers lack the expertise to design or conduct an appropriate study. Incentivized collaborative research and guidance from APIC or SHEA researchers could move this forward.
p. 177	Recommendation #1: Vascular Access	"Consider further investigation into policies that may unintentionally discourage early fistula placement.		As part of the Summary, we would expect to understand all the recommendations; however we are unclear as to the intent of this statement. If important, there should be discussion of the issue somewhere earlier in the document so the intent when mentioned in the summary is apparent.
p. 178	Recommendation #2: Healthcare- Associated Infection	" efforts largely be placed on vascular- access related,	Omission, recognition of MRSA and VRE as	While we agree with the emphasis on prevention of vascular access-related infection and stressing the importance of

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
- Number	Туре	hepatitis B and hepatitis C virus infection "	significant pathogens warranting a national strategy in the Dialysis setting.	prevention of hepatitis B and hepatitis C, we would also like to point out that MRSA and VRE are significant pathogens for dialysis patients.
p. 178	Recommendation #3: Immunization & Screening Practices			We support all these recommendations.
p. 178	Recommendation #4: Prevention Priorities			We support all of these recommendations. APIC and SHEA are in an excellent position to develop organizational support for initiatives pertaining to the 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> bullets.
p. 178 - 179	Recommendation #5: Metrics and Evaluation and Recommendation #6: Incentives and Challenges			We support all these recommendations.
p. 179	Recommendation #7: Information Systems and Technology			Needs clarification, recommendation appears to be incomplete.
p. 179	X. Conclusion	"reducing bloodstream infections, hepatitis B and C, influenza, and pneumococcal disease.	reducing access- related infections, hepatitis B and C, influenza, and pneumococcal disease.	Throughout the document, starting on page 153 the emphasis has been on HAI's related to vascular access, not exclusively BSI's. Therefore, specifying the reduction focus as access-related BSI within the conclusion makes this statement consistent with the rest of the document.
p. 180	TABLE 11			No comment
Comments re	elated to APIC's Oct 8,	2010 response		
p. 1	Section A	In the ASC section APIC suggests updating the wording "infection control" to "infection prevention and control"	The 2012 Action Plan did not incorporate this recommendation to include ESRD portions.	Strongly agree; recommend including this again in comments for the entire document including the ESRD portions.
р. 5	General Comments, Section B, bullets 2	Require a dedicated infection preventionist for each dialysis unit or, at a minimum, ensure that the individual in each	The 2012 Action Plan did not include this specification.	Strongly agree; recommend including this again in the comments.

Page Number	Location	Language	<b>Proposed Change</b>	Rationale
		dialysis unit responsible for infection prevention receives initial and ongoing training, such as that available through APIC.		
p. 6	General Comments Section B, bullet 3	Clarify and elaborate on the role of the individual responsible for infection prevention in hemodialysis units.	The 2012 Action Plan did not include this specification.	Strongly agree; recommend including this again in the comments.