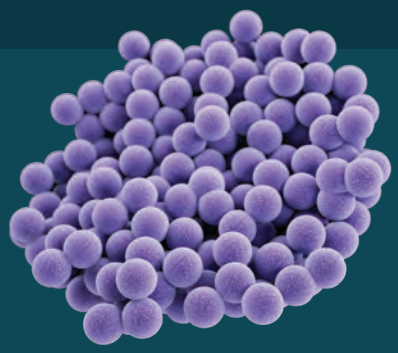
THE 6|18 INITIATIVE

EVIDENCE SUMMARY

Prevent Healthcare-Associated Infections



WHAT IS CDC'S 6|18 INITIATIVE?

The CDC is partnering with health care purchasers, payers, and providers to improve health and control health care costs. CDC provides these partners with rigorous evidence about high-burden health conditions and associated interventions to inform their decisions to have the greatest health and cost impact. This initiative aligns evidence-based preventive practices with emerging value-based payment and delivery models.

PROPOSED PAYER INTERVENTION

1 **Require antibiotic stewardship programs in all hospitals and skilled nursing facilities.**

WHO'S AT RISK?

At least 2 million illnesses and 23,000 deaths can be attributed each year to antibiotic-resistant infections. Nearly 900,000 cases of antibiotic-resistant infections were reported in 2010. Preliminary 2014 data suggest more than 40% of U.S. acute care hospitals have antibiotic stewardship programs that incorporate the CDC Core Elements for Hospital Antibiotic Stewardship Programs.[1]

OPPORTUNITIES FOR PAYERS AND PROVIDERS

Continue work with CMS to expand conditions of participation to assure antibiotic stewardship programs in a broader range of health care settings.

KEY HEALTH AND COST EVIDENCE MESSAGES FOR PAYERS AND PROVIDERS

Payers can promote the adoption of antibiotic guidelines that restrict widespread broad-spectrum use. Pharmacists and infectious disease staff can recommend discontinuing antibiotics or provide alternatives to prescribers. This can decrease antibiotic resistance and significantly reduce deadly diarrheal infections.

CURRENT PAYER COVERAGE (AS OF AUGUST 2015)

MEDICARE

- ✓ Proposed revision of Conditions of Participation to require antibiotic stewardship programs for long-term care and acute care settings aligning with CDC's Core Elements of Antibiotic Stewardship Programs.

MEDICAID

- ✓ Proposed revision of Conditions of Participation to require antibiotic stewardship programs for long-term care and acute care settings aligning with CDC's Core Elements of Antibiotic Stewardship Programs.

COMMERCIAL/PRIVATE

- ✓ Not required.
- ✓ Anthem, Blue Cross (CA): Quality-In-Sights®, Hospital Incentive Program (Q-HIP®), national hospital quality and value-based payment initiative, intended rollout in 2016.

SUPPORTING HEALTH AND COST EVIDENCE: SCIENCE BEHIND THE ISSUE

A study implementing the CDC Antibiotic Stewardship Guidelines resulted in 25% of antimicrobial orders being modified (86% resulted in less-expensive therapy, and 47% resulted in use of a drug with a narrower spectrum of activity), significantly increasing microbiologically based prescribing (63% vs. 27%). Stepwise implementation of an antimicrobial stewardship program demonstrated progressive decreases in antimicrobial consumption and savings of $913,236 over 18 months.[2]

A study of an intervention that led Canadian medical trainees to implement CDC-recommended antibiotic "time outs" reduced antibiotic costs on the unit from $149,743 (Canadian dollars) (January 2011 to January 2012) to $80,319 (January 2012 to January 2013), for a savings of $69,424 (46% reduction).[3]

A pharmacist records review of inpatients who were prescribed two or more antibiotics in order to identify redundant combinations identified 70% of combinations investigated were inappropriate. The pharmacist-stewardship intervention was projected to have saved $10,800 and 584 days of reduction in antibiotic combination days.[4]

PROPOSED PAYER INTERVENTION

2 **Prevent hemodialysis-related infections through immediate coverage for insertion of permanent dialysis ports.**

OPPORTUNITIES FOR PAYERS AND PROVIDERS

Encourage Medicare payers to improve the timing of coverage for insertion of permanent dialysis access.

KEY HEALTH AND COST EVIDENCE MESSAGES FOR PAYERS AND PROVIDERS

Starting hemodialysis with a fistula or graft, instead of a catheter, can improve the risk of infection, vascular access complication, and death for end-stage renal disease (ESRD) patients. Vascular catheters are strongly associated with death (34% greater death risk when a vascular catheter is used rather than a fistula for hemodialysis).

WHO'S AT RISK?

Cardiovascular catheter use at dialysis initiation among ESRD patients ranges from 56.8% to 71% in the United States.[5] In the chronic uremic patient on hemodialysis, infection is a leading cause of death, second only to cardiovascular disease. According to the United States Renal Data System, the death rate due to infection is 76 per 1,000 person-years at risk, with sepsis responsible for three-quarters of these deaths. Compared with the general population, the incidence of sepsis in patients with ESRD can be up to 100 times as high. Infections are a major reason for hospitalizations in ESRD patients and may be responsible for about 20% of inpatient admissions. A diagnosis of septicemia resulting in death among ESRD patients (43% in one year) is higher than that of the general population (20%).[6]

CURRENT PAYER COVERAGE (AS OF AUGUST 2015)

MEDICARE

- ✓ Uninsured new ESRD patients are eligible for Medicare coverage after 90 days of hemodialysis.[7]
- ✓ Uninsured chronic kidney disease patients are not eligible for Medicare. Thus, placement of predialysis vascular access is not covered.[8]

MEDICAID

- ✓ Coverage for alternate treatment options varies by state. For example, Indiana Medicaid 1115 Waiver coverage is available to maintain access to a kidney transplant.[9]

COMMERCIAL/PRIVATE

- ✓ If covered, the employer or union group plan pays first for 30 months after a person is eligible for Medicare because of kidney failure. The patient will eventually have to enroll in Medicare. After the 30 months, Medicare pays first. The employer or union group plan may pay all or part of the rest.[10]
- ✓ Medicare Advantage: Patients usually cannot join Medicare Advantage Plans if they've already had ESRD and have not had a kidney transplant.
- ✓ Medicare Special Needs Plans, a type of Medicare Advantage Plan, may be available (varies by location) for patients with ESRD. These plans must provide all Medicare Part A and Medicare Part B health care and services, as well as Medicare prescription drug coverage.[11]

SUPPORTING HEALTH AND COST EVIDENCE: SCIENCE BEHIND THE ISSUE

Researchers studied a policy to provide earlier disbursement of the ESRD benefit to Medicaid, privately insured, or uninsured patients requiring new maintenance hemodialysis to eliminate lag time in Medicare coverage for hemodialysis fistula placement for new maintenance hemodialysis patients. Findings suggest that changing from catheter use for dialysis initiation to fistula improves patient survival. The study also found that each hospitalization for catheter bacteremia equaled $23,000. Therefore, decreasing catheter dependence avoids hospitalization cost for infection (88,000 cases at $23,000 per case equals $2 billion per year). If catheter use is reduced by 50%, $1 billion in Medicare costs will be saved.[12]

REFERENCES

1. CDC. Core Elements of Hospital Antibiotic Stewardship Programs. Atlanta, GA: US Department of Health and Human Services, CDC; 2014. Available at http://www.cdc.gov/getsmart/healthcare/pdfs/core-elements.pdf
2. Dellit, TH, Owens RC, McGowan JE, Gerding DN, Weinstein RA, Burke JP, et al. Infectious Diseases Society of America and the Society for Healthcare Epidemiology/Burden of America Guidelines for Developing an Institutional Program to Enhance Antimicrobial Stewardship. Clinical Infectious Diseases. 2007;44(2):159–77. doi: 10.1086/510393. Available from: http://www.journals.uchicago.edu/doi/pdf/10.1086/510393
3. Lee TC, Frenette C, Jayaraman D, Green L, Pilote L. Antibiotic self-stewardship: trainee-led structured antibiotic time-outs to improve antimicrobial use. Ann Intern Med. 2014 Nov 18;161(10 Suppl):S53-8. doi: 10.7326/M13-3016
4. Glowacki RC, Schwartz DN, Itokazu GS, Wisniewski MF, Kieszkowski P, Weinstein RA. Antibiotic combinations with redundant antimicrobial spectra: clinical epidemiology and pilot intervention of computer-assisted surveillance. Clinical Infectious Diseases. 2003;37(1):59–64.
5. Wasse, H. Catheter-Related Mortality among ESRD Patients. [online] 2008. [cited 2015 October 29] Semin Dial. 2008 ; 21(6): 547–549. doi:10.1111/j.1525-139X.2008.00500.x. Available at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2921710/pdf/nihms226651.pdf
6. Department of Health and Human Services. End-stage renal disease facilities. National action plan to prevent health care-associated infections: road map to elimination..[online] 2013. [cited 2015 Sept 13] 142-173. Available from: http://www.health.gov/hcq/pdfs/hai-action-plan-esrd.pdf
7. Centers for Medicare & Medicaid Services. Medicare's coverage of Kidney dialysis & kidney transplant benefits: getting started [online]. 2015 Feb. [cited 2015 Aug 28]. Available from: https://www.medicare.gov/pubs/pdf/11360.pdf.
8. Allon M, Dinwiddie L, Lacson E Jr, Latos DL, Lok CE, Steinma[n T, et al. Medicare reimbursement policies and hemodialysis vascular access outcomes: a need for change. Journal of the American Society of Nephrology. 2011;22:(3):426–30. doi: 10.1681/ASN.2010121219.
9. State of Indiana Family and Social Services Administration. 1115 Waiver—Healthy Indiana plan expansion proposal [online]. 2014 Jun [cited 2014 Jun 23]. Available from: http://www.in.gov/fssa/hip/files/15-1115_Waiver_Expansion_-_2015.pdf.
10. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. Financial help for treatment of kidney failure [online]. 2014. [cited 2014 Mar 05]. Available from: http://www.niddk.nih.gov/health-information/health-topics/kidney-disease/financial-help-for-treatment-of-kidney-failure/Pages/facts.aspx.
11. Centers for Medicare & Medicaid Services. Medicare coverage of kidney dialysis & kidney transplant services [online]. 2015. [cited 2015 Aug 28]. Available from: https://www.medicare.gov/Publications/Pubs/pdf/10128.pdf.
12. Allon M, Dinwiddie L, Lacson E Jr, Latos DL, Lok CD, Steinman T, et al. Medicare reimbursement policies and hemodialysis vascular access outcomes: a need for change. Journal of the American Society of Nephrology. 2011;22(3):426–30. doi: 10.1681/ASN.2010121219.