Continued from page 650

“Fistulas and grafts are associated with lower rates of infections, so to move more patients into one of those types of access would be a strategy,” Moore said. “We actually had a strategy to try to improve our fistula placements, but it didn’t bring down our numbers.”

After investigating many options, she said, “the one that we kept coming back to was using prophylactic antibiotic locks.”

Now, a staff member instills a solution of gentamicin and sodium citrate into the catheter lumen after each dialysis session. In the year and a half that this intervention has been in place, Moore said, the CLABSI rate for hemodialysis patients has fallen by 85%.

Reports in the medical literature have shown similarly dramatic reductions in CLABSI through the use of antibiotic lock solutions. The long-term effects of the intervention on the development of resistant microbes are unknown, but a recent report indicates that resistance can occur.

“We haven’t seen any kind of trend toward increased resistance, but we are going to remain vigilant,” she said. If resistance develops, Moore said, a decision will have to be made about whether to continue using the antibiotic lock solution.

Moore cautioned that the intervention is not appropriate for every dialysis unit.

“If you’re experiencing high infection rates despite every effort to reduce your rates, using the strategies suggested by the CDC, then it’s something to consider,” she said. “But if you have low rates of infection, I don’t think it’s necessarily appropriate to use.”

Moore said that although hemodialysis patients could greatly benefit from a pharmacist’s services, many units do not have a pharmacist on staff.

“Our unit does,” Moore said, adding that she works in coordination with the nephrologists, nurses, dietitians, social workers, and other staff involved in hemodialysis.

And in any hospital, she noted, “if you’re using an antibiotic lock [solution], you have to coordinate with pharmacy.”

**Action plan.** The U.S. Department of Health and Human Services in 2008 launched a five-year action plan for reducing health-care-associated infections, including CLABSI.

A central tenet of the plan is that many health-care-associated infections are preventable. The plan describes the cost of these infections as “staggering,” amounting to $28–33 billion in excess health care costs each year.

The plan calls for a 50% reduction in CLABSIs in ICUs and hospital wards by 2013. The current projection, on the basis of data from 2009, is that the target will be surpassed, reaching 63% in 2013.

Kate Traynor
DOI 10.2146/news110023

---

**ASHP past president Herbert S. Carlin dies at 78**

Herbert S. Carlin, M.S., D.Sc., Distinguished Volunteer Service, from USP.

The election of Carlin to the presidency of ASHP surprised the then chief pharmacist at the University of Illinois at the Medical Center, in Chicago. He had assumed he would lose to Sister Mary Gonzales Duffy of Mercy Hospital in Pittsburgh.


But Carlin was not really unknown to the membership. In the early 1960s, he and mentor Herbert L. Flack, the 1949–50 ASHP president, had presented papers on pharmacists’ and manufacturers’ responsibilities for purchasing and selling pharmaceuticals under the formulary system. Another of their papers was on injectable medications.

Flack had been Carlin’s residency preceptor at Jefferson Medical College Hospital in Philadelphia. Flack was also the person whom Carlin credited for persuading the young Rhode Island community pharmacist to pursue an education and career in hospital pharmacy.

Carlin, soon after completing his master’s degree and residency, became
head of the pharmacy department at the University of Colorado Medical Center in Denver. He introduced pharmacy-supplied inpatient medications, including pharmacy-made injectables, to the facility.

In 1963, Carlin became chief pharmacist at the University of Illinois at the Medical Center and an assistant professor at the college of pharmacy.

Students, such as Henri R. Manasse Jr., who took Carlin's senior-level course in clinical pharmacy participated in patient rounds at the hospital.

“He wanted us to get an understanding of what drugs do in patients, which, of course, you don’t get in the classroom,” said Manasse, now the executive vice president of ASHP.

Manasse, who also worked one year for Carlin, said pharmacy students’ participation in patient rounds was “very avant-garde” at the time.

Another innovation of Carlin’s, Manasse said, was the drug information center, which served as the foundation for the department’s clinical pharmacy services.

Carlin left in 1972 to be the “apothecary-in-chief” for New York Hospital–Cornell Medical Center in New York City and build the clinical pharmacy program.

Around that time, Carlin said in his oral history, he started working to repeal the state laws preventing community pharmacists from selecting the brand of a drug when dispensing a prescription.

“My point was,” he said, “if we couldn’t pick the brands of a drug, if we didn’t have the abilities—enough of pharmacuetics—to do that, we were really nothing.”

The need to change the antisubstitution laws, said Joseph L. Fink III, a law professor at the University of Kentucky College of Pharmacy in Lexington, was the “overarching issue for pharmacy” in the 1970s.

“What the change in the antisubstitution laws did,” he said, “was essentially unshackle a pharmacist to be able to use his or her knowledge and professional judgment to save the patient money, while at the same time preserving the patient’s health. And Herb was in the forefront of that” movement.

Receipt of the Harvey A. K. Whitney Lecture Award in 1977 gave Carlin the opportunity to speak on the subject that he considered his favorite: pharmacists’ accountability in patient care.

“The question of accountability is crucial to the provision of comprehensive pharmaceutical service,” he declared in his lecture, “and to the survival of pharmacy as a profession making a full contribution to health care.”

Carlin’s decades of work with USP began when he represented ASHP at the standards-setting organization’s 1970 convention.

He worked mostly on nomenclature issues, which, he said in his oral history, “sounds very dull until you . . . realize the importance of developing a standard nomenclature.”

One result of his committee’s work, Carlin said, is uniformity in the names of injectable pharmaceuticals, regardless of formulation or route of administration. Those products’ generic names now all start with the name of the drug substance and include the word “injection” or “injectable,” which was not always the case.

Carlin retired from pharmacy practice in 1986 and started a consulting firm.

What he thought would be a six-month consultancy for Henry Schein’s new pharmaceutical company turned into more than a decade as a vice president at Schein Pharmaceutical Inc.

It was in that role, Carlin said in his oral history, that he helped to negotiate the production of the softbound collection of ASHP practice standards that members and hospital residents received annually for several years.

Carlin is survived by his wife, Mary Joan, of Newtown, Pennsylvania, 5 children, and 12 grandchildren. He was predeceased by his first wife, Ruth. His daughter Judith is a pharmacist.

Contributions in Carlin’s memory may be made to the University of Rhode Island Foundation, P.O. Box 1700, Kingston, RI 02881-9911, or to University of the Sciences in Philadelphia, Office of the President, 600 S. 43rd Street, Philadelphia, PA 19104-4495 (note in the memo “Herbert Carlin Scholarship”).

—Cheryl A. Thompson
DOI 10.2146/news110024

Continued on page 654