Shifting trends in the market and the transition to a value-based care model are forcing providers to deliver care in a more cost-effective manner. One of these methods to offer value-based cost effective care is through home infusion therapy. Safety concerns over the toxicity of chemotherapy drugs infused in the home setting have been barriers to offering this service in the past. Improvements in pump technology and the ever-changing landscape of home infusion care has created a more comfortable environment for chemotherapy drug delivery in the home setting. This analysis examines the pilot patient results of EPOCH through a non-traditional home infusion model where home infusion care is offered through a hospital based infusion center.

**EPOCH OVERVIEW**

EPOCH is a drug regimen developed to treat non-Hodgkin's lymphoma patients and consists of etoposide, prednisone, vincristine, cyclophosphamide, and doxorubicin. The standard regimen is given every 21 days in the inpatient setting for a total of 6–8 cycles. Each inpatient cycle requires a 4 day length of stay.

**PATIENT SELECTION CRITERIA**

Not all patients meet the selected criteria to receive intravenous administration within the home setting. Working with Nursing Leadership, Pharmacy and Providers the following criteria were developed to determine potential patients:

- Must receive cycle 1 in the inpatient setting with no complications
- Have access to dedicated caretaker outside of the hospital setting
- Residence within the primary market area or 100 mile radius
- Provider input regarding the patient competency

**PILOT PATIENT OVERVIEW & RESULTS**

Based on the patient selection criteria, cycle 1 should remain in the inpatient setting to observe how the patient responds to therapy. Cycles 2–8 then have the potential to be transitioned to the outpatient setting, resulting in 20–28 patient days per patient to be transitioned to a lower cost of care setting. This model improves patient satisfaction, overall access to care and creates additional capacity in the inpatient setting.

The pilot patient selected to receive EPOCH in the home setting had seen this service offering on-line at other institutions and challenged UK HealthCare to offer the administration of EPOCH in the home setting. Leveraging the existing contract with an infusion pump rental service reduced implementation time. Through the contract, Infusystem® provides...
education material, pump maintenance, and after hours call–support. Additional time was still warranted to get organized around how to strategically move subsequent cycles to the patient’s home. Working with pharmacy, clinical & operational leadership and finance we were able to develop a protocol to transition the pilot patient’s cycle 4 to the outpatient setting. Cycle 4 came with its challenges as there were multiple tests to overcome. This included an ER visit, prolonged infusion time and pump filter issues. After cycle 4, the patient insisted on continuing subsequent cycles be administered in the home setting as the patient enjoyed the comfort of having their pet by their side while receiving therapy and not being confined on an inpatient unit. Clinical and operational leadership worked through the infusion time and filter issues before the start of cycle 5 and both cycles 5 and 6 were administered in the home with no complications. Since the completion of the pilot program, there have been 3 additional patients who have received EPOCH administration in the home setting along with additional candidates being considered.

COST COMPARISON AND METHODOLOGY
Cost are assigned through an activity based costing model where activity codes have specific RVU (relative value unit) weights per department used to allocate cost. Each activity code is then assigned a cost amount. The summation of the billed activity codes per patient provide an accurate cost depiction per patient. The pilot patient results revealed that it was 23.3% less costly to provide this intravenous administration through a home infusion model. Overall the pilot patient resulted in a $6,000 direct cost savings compared to a patient receiving a full regimen in the inpatient setting. Based on the pilot results, we would estimate that a patient with cycle 1 administered in the inpatient setting and cycles 2–6 administered in the home would result in a variable direct cost savings of more than $9,900 or a 19.4% reduction. With an annual estimated 10–15 patients meeting the outpatient EPOCH criteria, this transition would result in significant savings and create additional bed capacity.

KEY TAKEAWAYS AND MOVEMENT FORWARD
To evaluate the overall the overall cost effectiveness of transitioning EPOCH to the home setting one must first evaluate the overall patient population eligible for therapy. Next is to determine those patients that live within a close proximity of your center and then apply an eligible patient percentage. Using a 15–20% cost reduction factor applied to the eligible patient population across cycles 2–6 will provide a rough estimate of the cost effectiveness of home infusion therapy options for EPOCH at your facility. Given the success of pilot program UK HealthCare is now exploring other drugs such as Blincyto®, and Yondelis® to transition to the home setting.

Disclosures:
The author have declared no potential conflicts of interest.

Supporting Articles:
https://www.managedcaremag.com/archives/2012/7/home-infusion-ready-prime-time
https://www.nhia.org/about-home-infusion.cfm
https://www.infusystem.com/

Jeff Reynolds is a native of Lexington, KY where he obtained a Bachelor of Business Administration in Finance with Departmental Honors at the University of Kentucky. He also completed a Masters of Business Administration at the University of Louisville. Currently, Jeff is a Business Partner Director at UK HealthCare supporting the Markey Cancer Center and Pharmacy Services. With more than a decade of experience in the healthcare industry, Jeff has established himself as a key resource working with operational leaders through value add analysis and reporting to drive strategic decision making. His investment in key services areas has reduced the learning curve for less tenured staff members, strengthened work relationships, and improved his overall value to the team. Jeff’s experience and continuous support is what sets him apart from his peers.
YOU CAN’T AFFORD TO MISS THIS YEAR’S PROGRAM!

Register for the 24th Annual Association of Cancer Executive’s Annual Conference in Portland, Oregon

You will not want to miss the exciting 24th Annual Association of Cancer Executive’s Conference held from January 28th to 30th, 2018 in beautiful Portland, Oregon. Teresa Heckel, President-Elect and 2018 Conference Chair for ACE and the Education Committee are extremely excited about the program this year and have lined up more than 30 experts to provide you, the oncology leader, with the tools and resources your program needs to be successful in today’s healthcare environment. Challenges are increasing in our field. This conference focuses on the key issues facing oncology programs with practical solutions and strategies for implementation. The conference has shifted from longer sessions to more shorter duration “Ted Talk” style presentations to give you greater content and higher value.

There are three pre-conference workshops, designed to provide greater in-depth learning on key topics. Our core and very popular ACE 101 is designed for the newer oncology leader, providing numerous foundational presentations. Next, there is a new workshop, Oncology Financial Management Strategies, which contains several presentations focused on current issues around oncology revenue and expense challenges. Our third, and also new workshop, Charting Your Oncology Leadership Career, will provide the opportunity for learning about the ever-changing roles in oncology leadership and how to best craft your career for future growth and opportunities. This is a great workshop for newer leaders beginning to think about taking their career to the next level, or veteran leaders wanting to transition from traditional roles.

Our general conference features a total of 19 presentations with two keynote speakers—Dr Brian Druker, the founder of Gleevec and often referred to as the father of precision medicine, who will speak on the changes in Precision Medicine and what oncology leaders need to know. Dr Richard Wender, Chief Cancer Control Officer for the American Cancer Society, will discuss Population Health and the Oncology Program: Closing the gap. Other topics include:

- The future of data and analytics in healthcare;
- Practical learnings from OCM participants;
- Staffing models for nursing and MA’s;
- TeleHealth for oncology;
- Key strategies for reducing readmissions and maximizing navigation;
- 5-year capital planning for oncology and what you should know;
- Patient experience innovations;
- Physician productivity;
- Key strategies for oncology in a value-based environment;
- Reimbursement and 340b Updates;
- Leveraging disruptive innovations to create value;
- MACRA and ACO’s to evolve to Quality;
- Data points for financial health;
- Improving palliative care services;
- Precision medicine and what administrators need to know;
- Are bundled payments in cancer’s future? and
- Regionalization in an era of financial constraints.

This year’s program is one that no oncology leader should miss. Register now at www.cancerexecutives.org