Data to Be Presented at IDWeek™ 2020 Demonstrate the Economic and Clinical Burden of Respiratory and Multi-Virus Infections in Allogeneic Hematopoietic Cell Transplantation Recipients

October 21, 2020

Findings Demonstrate Significantly Higher Health Care Costs, Health Resource Utilization, and Worse Clinical Outcomes Among Allo-HCT Patients with Viral Infections

CAMBRIDGE, Mass., Oct. 21, 2020 (GLOBE NEWSWIRE) -- AlloVir (Nasdaq: ALVR), a late clinical-stage cell therapy company, today announced that health outcomes analyses to be presented at IDWeek™ 2020 demonstrate the economic and clinical burden associated with respiratory tract infections and multi-virus infections following allogeneic hematopoietic cell transplantation (allo-HCT). The presentations include an oral presentation evaluating the economic and clinical burden of respiratory virus infections (RVI) in allo-HCT recipients and a poster presentation on health resource utilization and costs associated with multi-virus infections after allo-HCT. The studies report on U.S. claims data analyses of 13,363 allo-HCT patients between Jan. 1, 2012 and Dec. 31, 2017 to assess total healthcare reimbursement, health resource utilization (HRU), and clinical outcomes in the year following allo-HCT.

Oral Presentation: **Economic and Clinical Burden of Respiratory Virus Infections in Allogeneic Hematopoietic Cell Transplantation Recipients**
Date: On Demand, Starting Wednesday, October 21
Presenter: Michael G. Ison, MD, MS, Northwestern University Feinberg School of Medicine, Chicago, IL

U.S. claims data from the Decision Resources Group Real World Evidence Data Repository was analyzed to identify allo-HCT recipients from 2012 – 2017 to assess health care reimbursements, HRU, and clinical outcomes in the one-year following allo-HCT in patients with and without RVI. The analysis studied patients who had been coded with one of four RVIs, including respiratory syncytial virus (RSV), influenza, parainfluenza virus (PIV), and human metapneumovirus (hMPV). A generalized linear model was used to determine adjusted total reimbursement stratified by the presence or absence of any acute or chronic graft-versus-host diseases (GVHD) after adjusting for age, health plan, underlying disease, stem cell source, number of comorbidities, baseline costs, and follow-up time.

Unadjusted median reimbursements were $132,395 higher for any RVI ($139,439 RSV, $101,963 influenza, $185,041 PIV, and $248,029 hMPV) compared to those without RVIs. Adjusted reimbursements were significantly higher for patients with any RVI compared to patients without that infection (p<.0001) with or without GVHD. Patients with any RVI had significantly longer length of stay (LOS) for the HCT hospitalization, higher readmission rate, and longer LOS after allo-HCT hospitalization compared to patients without RVI (p<.0001). The mean overall hospital LOS was significantly longer for patients with an RVI as compared to those without (13 days; p<.0001): 11 days longer for patients with RSV (p<.0001), 10 days longer for patients with influenza (p=.0002), 28 days longer for patients with PIV (p=.0001), and 19 days longer for patients with hMPV (p<.0001). A significantly higher proportion of patients with any RVI had pneumonia as compared to patients without that infection, irrespective of presence of GVHD (p< .0001). In the adjusted analysis, the presence of any RVI was significantly associated with all-cause mortality, regardless of the presence of GVHD (p<.0001).

“Patients with T cell deficiencies, like those undergoing HCT, are at higher risk for respiratory viral infections,” said Michael G. Ison, MD, MS, Professor, Northwestern University Feinberg School of Medicine and presenting author. “These data show that respiratory viral infections have a significant impact on patient outcomes, as exemplified by a higher proportion of patients developing pneumonia and a greater risk of mortality. Additionally, the burden to our healthcare system is great in terms of higher total cost, prolonged patient hospitalization, and more frequent patient readmissions. It’s clear we need better treatment options to help patients prevent and fight off these commonly occurring respiratory viruses.”

Poster Presentation: Healthcare Resource Utilization and Costs Associated with Multi-virus Infection After Allogeneic Hematopoietic Cell Transplantation
Date: On Demand, Starting Wednesday, October 21
Poster #1089
Presenter: Joshua A. Hill, MD, Assistant Professor, Fred Hutchinson Cancer Research Center, University of Washington, Seattle

U.S. claims data was analyzed to compare health care reimbursements, HRU, and clinical outcomes between allo-HCT patients with no versus multiple dsDNA infections due to cytomegalovirus (CMV), BK virus (BKV), Epstein-Barr virus (EBV), JC virus (JCV), adenovirus (AdV), and human herpesvirus-6 (HHV-6). The unadjusted mean reimbursements per patient group were $266,345 for individuals who did not have a dsDNA viral infection compared to $431,614 for patients with one virus; $639,097 for those with two viruses; and $964,378 for those with three or more viruses. Adjusted reimbursements were significantly higher for each additional viral infection among patients with and without GVHD compared to patients with no viral infections (p<.0001). HRU also increased as the number of viral infections increased: the mean overall hospital LOS increased significantly with each additional viral infection (p<.0001): 41.3 days for patients with no viruses compared to 61.4 days for one virus, 77.0 days for two viruses, and 103.3 days for three or more viruses. The LOS and the number of days in the ICU during the index hospitalization as well as in readmissions after index also increased significantly with each additional viral infection (p<.0001 for both outcomes).

Allo-HCT patients with multiple dsDNA viral infections have worse clinical outcomes such as new diagnosis of renal impairment, irrespective of the presence of GVHD, and higher mortality rate for patients with GVHD. Among patients with GVHD, all-cause mortality (21.0%-21.4%) and new diagnosis of renal impairment (27.5%-35.7%) were significantly higher for patients with one or more viral infections as compared to patients with no viral infections (all-cause mortality: 16.8%; new diagnosis of renal impairment: 22.3%). Among patients without GVHD, new diagnosis of renal

impairment (20.9%-30.2%) was significantly higher for patients with one or more viral infections as compared to patients with no viral infections (14.6%). In addition, patients with an increasing number of viral infections had a higher risk of all-cause mortality, after adjusting for GVHD and baseline characteristics.

“Allogeneic hematopoietic cell transplantation has revolutionized the way we treat some cancers,” said Joshua A. Hill, MD, Assistant Professor, Fred Hutchinson Cancer Research Center and presenting author. “However, because of the conditioning regimen required to prepare patients for the transplant, it puts them in an immunocompromised state and at greater risk for viral infections. These data show that these viral infections have both significant impact on patient outcomes and on the health care systems working to treat them. For many of the viruses affecting these patients, there are limited or no treatment options.”

About AlloVir
AlloVir is a leading late clinical-stage cell therapy company with a focus on restoring natural immunity against life-threatening viral diseases in patients with severely weakened immune systems. The company’s innovative and proprietary technology platforms leverage off-the-shelf, allogeneic, multi-virus specific T cells targeting devastating viruses for patients with T cell deficiencies who are at risk from the life-threatening consequences of viral diseases. AlloVir’s technology and manufacturing process enables the potential for the treatment and prevention of a spectrum of devastating viruses with each single allogeneic cell therapy. The company is advancing multiple mid- and late-stage clinical trials across its product portfolio. For more information visit www.allovir.com.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, statements regarding AlloVir’s development and regulatory status of our product candidates and its strategy, business plans and focus. The words “may,” “will,” “could,” “would,” “should,” “expect,” “plan,” “anticipate,” “intend,” “believe,” “estimate,” “predict,” “project,” “potential,” “continue,” “target” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this press release are based on management’s current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, those related to AlloVir’s financial results, the timing for completion of AlloVir’s clinical trials of its product candidates, whether and when, if at all, AlloVir’s product candidates will receive approval from the U.S. Food and Drug Administration, or FDA, or other foreign regulatory authorities, competition from other biopharmaceutical companies, and other risks identified in AlloVir’s SEC filings. AlloVir cautions you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. AlloVir disclaims any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements. Any forward-looking statements contained in this press release represent AlloVir’s views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date.

Media contact:
Courtney Heath
ScientPR
AlloVirPR@scientpr.com
617-872-2462

Investor contact:
Medha Chadha
AlloVir
ir@allovir.com