were excluded. **RESULTS:** The included studies were varied in focus, study design and conclusions. They researched the impact of different types of incentives examining their ability to attract donors and maintain blood safety by preventing disease transmission. Commonly mentioned incentives were free medical tests, blood credits, paid time off and tickets to events, such as concerts. The success of incentives to attract donors is dependent upon age with younger donors being more receptive to most incentives than older donors. However, offering free cholesterol and PSA screening also motivates older donors. Using these types of medical tests as incentives is unlikely to detrimentally affect blood safety. However, there is considerable debate concerning the use of incentives with monetary value. There are data showing that the safety of donated blood is not adversely affected by such incentives, but there are also data showing a high response to such incentives by high-risk donors who donate in order to receive HIV testing. **CONCLUSIONS:** The positive impact of incentives with monetary value is limited by their appeal to donors from high-risk groups. However, if blood incentive programmes are organised at regional or communal levels as opposed to national levels it may be possible to take advantage of their appeal to younger donors in areas with low levels of HIV-risk behaviours.

BLOOD RELATED STUDIES

BLOOD RELATED STUDIES—Methods

PBR5

GREATER AREA UNDER THE HEMOGLOBIN CHANGE CURVE DURING EPOETIN ALFA TREATMENT IS ASSOCIATED WITH IMPROVED PATIENT OUTCOMES

Lefebvre P[1], Fastenau JM[2], Duh MS[1], Cremieux P[1], McKenzie RS[2], Piech CT[2]

[1]Analysis Group, Inc, Boston, MA, USA; [2]Ortho Biotech Products, L.P., Bridgewater, NJ, USA

OBJECTIVES: To evaluate the clinical significance of a greater area under the hemoglobin change curve (Hb AUC) value during epoetin alfa (EPO) treatment. **METHODS:** Datasets from two EPO trials were used (Study 1: N = 2964; Study 2: N = 2289). Initial EPO regimens were: Study 1: 40,000 IU once weekly (QW), Study 2: 10,000 IU thrice weekly (TIW). Each study allowed for potential dose escalation to 60,000 IU QW and 20,000 IU TIW respectively. Patients were *0.35618 years, had a baseline Hb of £11 g/dL, and received concomitant chemotherapy. Outcome measures included: blood transfusions, quality of life (QoL) measured by Linear Analog Scale Assessment and Functional Assessment of Cancer Therapy Anemia and Fatigue, drug utilization and hematopoietic response. All missing values were imputed based on a last-value-carried-forward principle. Hb AUC values (g/dL) from baseline to 16 weeks were stratified into five groups established based on data frequency distributions and clinical judgment (Hb AUC 1: <11; Hb AUC 2: 11 – < 18; Hb AUC 3: 18 – < 25; Hb AUC 4: 25 – < 32; Hb AUC 5: > 32). **RESULTS:** Mean Hb AUCs were similar (Study 1: 19.7 g/dL, Study 2: 21.3 g/dL). For Hb AUC groups 1–5 respectively, the following significant trends were observed for patients with greater Hb AUC values: decreased transfusion use (%) (Study 1: 41, 24, 15, 14, 10; Study 2: 46, 33, 24, 21, 15), increased QoL across all domains, reduced weekly dose (IU) (Study 1: 45,934, 45,130, 42,596, 41,021, 39,478; Study 2: 38,643, 37,752, 35,011, 33,853, 31,459) and improved hematopoietic response (%) (Study 1: 13, 54, 85, 98, 100; Study 2: 8, 52, 79, 96, 100). **CONCLUSIONS:** Hb AUC is a comprehensive efficacy measure reflecting Hb change over the entire treatment course. Greater Hb AUC values are associated with a reduction in transfusion requirements, improved QoL and drug utilization outcomes, confirming its clinical significance.

PBR6

REPORT FROM THE FIRST MULTIDISCIPLINARY COST OF BLOOD CONSENSUS (COBCON) WORKING GROUP TO ESTABLISH STANDARD METHODOLOGY

Broder M[1], for the COBCON Working Group (SABM)[2], Aledort LM[3], Busch MP[4], Custer B[4], Fergusson DA[5], Goodnough LT[6], Hendler RS[7], Hofmann A[8], Klein HG[9], Louie JE[10], Page PL[11], Sazama K[12], Shander A[13], Shulman IA[14], Spence RK[15], Sullivan MT[16], Thurer RL[17]

[1]Zynx Health, A Cerner Company, Beverly Hills, CA, USA; [2]Society for the Advancement of Blood Management, Englewood, NJ, USA; [3]Mount Sinai School of Medicine, New York, NY, USA; [4]The Pacific/Blood Systems, Inc., San Francisco, CA, USA; [5]University of Ottawa Centre for Transfusion Research, Ottowa, ON, Canada; [6]Washington University School of Medicine, St. Louis, MO, USA; [7]Tenet Health Systems, Dallas, TX, USA; [8]SABM-Austria, Vienna, Austria; [9]Warren G. Magnuson Clinical Center, Bethesda, MD, USA; [10]New York Blood Center, New York, NY, USA; [11]American Red Cross, Washington, D.C., USA; [12]University of Texas MD Anderson Cancer Center, Houston, TX, USA; [13]Mount Sinai School of Medicine and Englewood Hospital and Medical Center, Englewood, NJ, USA; [14]Keck School of Medicine of the University of Southern California, Los Angels, CA, USA; [15]St. Agnes Heatlh Care; [16]National Blood Data Resource Center, Baltimore, MD, USA; [17]Harvard Medical School and Beth Israel Medical Center, Boston, MA, USA

OBJECTIVE: To formulate a more comprehensive and generalizable model than is currently available that fully accounts for costs associated with blood transfusions. **METHODS:** A consensus panel of experts in transfusion medicine was organized by the Society for the Advancement of Blood Management (SABM), representing clinical, blood banking, and academic interests. An iterative process was used to refine data from worksheets that had been distributed, collected, and summarized prior to the conference. **RESULTS:** A detailed process-flow model was constructed, encompassing both direct and indirect cost elements. Major steps and critical interdependencies were identified, including donor recruitment/qualification, blood collection, blood component processing, laboratory testing, unit tracking and labeling, blood destruction, donor notification and tracking, blood center/collection facility inventory, storage, and transport, transfusion service inventory and storage, pretransfusion preparation, transfusion administration and follow-up, and long-term outcomes tracking. Within these major steps, 248 cost elements were itemized. The relative importance and degree of difficulty associated with collecting cost data for each element were rated. Panelists rated personnel, screening for infectious agents, information systems, laboratory evaluations, transfusion reaction management, and equipment as the most important elements to capture. Limitations in current process-flow models were recognized, with deficiencies in accounting for both direct and indirect costs. Work is in progress to convert the present model into one that employs activity-based costing (ABC) which will correct the underestimates of blood costs provided in existing literature. **CONCLUSIONS:** Accounting for the cost of blood is an enormously complex undertaking and a standard, widely applicable methodology is needed. As presented, this process-flow diagram and comprehensive set of cost elements should be of interest to providers, payers, and society. When completed, the ABC model will be a more precise means to compare the cost of blood to that of transfusion alternatives or for evaluating safety-related improvements to blood administration technology.