MMRF Third Annual Health Equity Summit: Improving Equity and Inclusivity in Multiple Myeloma Clinical Research

September 9-10, 2024 | Hyattsville, Maryland

For many people with multiple myeloma, clinical trials offer the best treatment options. However, not all multiple myeloma patients have equal opportunity to benefit from potentially efficacious therapies under study in clinical trials. Certain populations, including patients who are older, who are Black and/or Hispanic, and/or who live in rural areas, are often excluded from multiple myeloma clinical trials. Disparities in access to clinical trials can greatly affect patient outcomes.

Patients' identities often cross these demographics, and in order to recruit a diverse and representative population, clinical research must make space for the many factors that contribute to health outcomes. When clinical trial design considers the intersections of a patients' multiple social identities and communities, opportunity is maximized to a broader possible population, meaning faster trial enrollment, and faster answers.

As part of the MMRF's commitment to improving health outcomes for all multiple myeloma patients, the Foundation convened its third annual Health Equity Summit to improve equity and inclusivity in multiple myeloma clinical research. The Summit, held September 9-10, 2024, in Hyattsville, Maryland, brought together policymakers, academic researchers, biopharma executives, retail pharmacists, and community health advocates to explore strategies and solutions to drive proportional patient representation in clinical research studies.

Building on the 2023 Health Equity Summit

Since the 2023 Summit, the MMRF has made significant strides toward increased inclusivity and access to clinical trials.

In response to research presented by Lauren Merz, MD (Dana Farber Cancer Institute), which showed that benign laboratory differences disproportionately exclude Black patients from clinical trials, the MMRF resolved that all future clinical trials conducted by the Foundation through the Multiple Myeloma Research Consortium (MMRC) will have innovative inclusion/exclusion criteria to ensure inclusion of patients who are Duffy-null or have hemoglobinopathies but are otherwise eligible. The MMRC will consider the Duffy-null specific reference range put forth by Merz in developing eligibility criteria and dose-reduction criteria and conduct prospective research within the clinical trials program to refine understanding of these factors in the safe conduct of trials to maximize opportunity for the entire myeloma community. A perspective article that focuses on the role of laboratory reference ranges as a barrier to clinical trial participation and offers tangible steps to improve the enrollment of a diverse and representative population will be published in an upcoming special issue of *Seminars in Hematology* focused on new developments in multiple myeloma.

The MMRF has also advanced its Translational Research Umbrella (TRU) program, a new research initiative that will provide deep genomic and immune characterization of patients to better understand how to optimize immune agents. Importantly, TRU will leverage a collaborative network of major medical centers and community sites with diverse patient populations, ensuring sample collection is reflective of a real-world patient population.

As of September 2024, the Foundation has launched the MMRC Horizon an innovative, first-of-its-kind adaptive platform trial program that prioritizes health equity and diversity in its design, site selection, and patient support efforts. MMRC Horizon has appointed a Diversity Officer — Craig Cole, MD (Karmanos Cancer Center) — and established clear diversity goals, aiming to enroll a study population that is comprised of at least 20% Black and 15% Hispanic patients. All MMRC Horizon study sites have a proven track-record of representative clinical trial enrollment and were selected with both geographic and demographic diversity in mind; The MMRF is exploring mechanisms to expand Horizon to new sites outside of the MMRC, including the VA, and will use hub-and-spoke models, community clinics/labs, telemedicine where possible, to support research sites in their efforts to expand access for their patients while reducing the typical burdens associated with clinical trials participation.

In the upcoming MMRC Horizon One RRMM study, researchers will prospectively track Duffy status and absolute neutrophil count (ANC), hemoglobin genotypes, and hemoglobin levels for correlation with clinical outcomes, including adverse events, tolerance to therapy/dose reductions, and treatment response. Although MMRC Horizon One will use current standard inclusion and exclusion ranges, supportive care will be allowed prior to screening so that otherwise eligible patients with Duffy-null or hemoglobinopathies will be able to screen and enroll in the trial. To ensure patient burden is not a barrier to participation, the MMRC Horizon team has partnered with a national nonprofit financial resource organization to provide financial assistance with transportation and lodging, meals and utilities.

The 2023 Summit emphasized the importance of patients seeing themselves and their community reflected in their healthcare team. To this end, the MMRF has committed to funding investigators from underrepresented communities through its Scholars Program. The Program's purpose is to improve equity in myeloma research and overall outcomes by increasing workforce diversity. Two inaugural scholars, Eden Biltibo, MD (Vanderbilt University Medical Center), and Joselle Cook, MBBS (Mayo Clinic), have since undertaken research focused on eliminating disparities in multiple myeloma outcomes. Dr. Cook's MAGIC study, for example, aims to determine the prevalence of monoclonal gammopathy of undetermined significance (MGUS) — a precursor condition to multiple myeloma — in Eastern African and Caribbean populations, and identify the frequency and understand the significance of the RS9344 SNP. The community-based study includes site visits to Trinidad, presentations to community advisory boards, discussions with local imams in the Somali community of Rochester, Minnesota, and a series of community outreach materials, including videos and brochures to explain the disease and the study, and its importance to the community.

Building representative clinical trials

In order to recruit and enroll a diverse and representative patient population, study design must consider the needs of the community and how easy it is to integrate the study into regular clinical practice.

Genentech's CATORI study is an example an observational study designed to determine the unique barriers that Indigenous communities face when trying to access specialty care. Shalini Mohan, MD, Head of Health Equity and Inclusive Research at Genentech, shared that the CATORI research team began engaging with the community two years before asking patients to enroll. The study's hybrid enrollment model, which included a patient-facing website and ads on channels where participants got health information, proved key to successfully enrolling patients.

Another study that had excelled at reaching underrepresented patients is ASCO's TAPUR, a pragmatic clinical study that aims to match patients with FDA-approved targeted anticancer therapies in innovative ways through the use of genetic testing. Richard Schilsky, MD, principal investigator of TAPUR, explained that the study's high rate of enrollment is driven by its hub-and-spoke model and rigorous selection of study sites with a proven commitment to diversity. In addition, TAPUR's broad eligibility criteria and physician discretion in genomic profiling testing and drug dosing make the study more likely to be adopted into clinical practice.

Efforts to increase diversity in clinical trials are also being made in regulatory and policy spaces. The FDA's Food and Drug Omnibus Reform Act (FDORA) addresses underrepresentation in drug development plans by requiring sponsors to submit Diversity Action Plans that specify enrollment goals by race, ethnicity, sex, and age group, and include measures that will help recruit and retain patients. The Oncology Center of Excellence (OCE) Equity Program also works to advance equitable access to clinical trials for historically underrepresented populations through policy, research and education. Another such example is the National Cancer Institute's (NCI) Community Oncology Research Program (NCORP), which has a long history of increasing diversity in clinical trials by "meeting patients where they are." NCORP has more than 2,200 enrolling sites, including 23 community sites and 14 underserved sites that are connected through a unified infrastructure.

Reaching underrepresented trial populations

Summit speakers centered the importance of culturally competent research teams, targeted engagement efforts, and building strong community partnerships to engage populations traditionally underrepresented in cancer clinical trials.

For example, the Center for Viral Hepatitis' Stomach Cancer Task Force has built strong partnerships with patient advocacy organizations to reach Asian Americans, who are disproportionately affected by hepatitis B and stomach cancer. The organization is focused on improving health literacy and integrating culturally sensitive communications into patient care to educate the community about the importance of early detection.

William Maybee (Roswell Park Comprehensive Cancer Center) stressed the importance of education and awareness before recruitment when engaging indigenous populations, and the need for research organizations to demonstrate enduring investment and commitment in the community before and beyond trial enrollment. Roswell Park's Department of Indigenous Cancer Health works alongside a Community Advisory Board, whose five members represent tribes across the Haudenosaunee Confederacy, to build relationships with tribal governments and conduct targeted awareness and education campaigns.

Fabian Robles (UT Southwestern Medical Center) underscored the importance of understanding how the unique challenges of a community may be a barrier to trial participation. Addressing these challenges — whether distrust, health literacy or financial burden, to name a few — has been critical in enhancing access to care for Hispanic populations at UT Southwestern Medical Center. Robles also suggests that incorporating the role of a clinical trial navigator as part of nurse navigator teams in the clinic setting can help support patients both toward identifying clinical trials and throughout their clinical trial journey.

Demographic considerations in the implementation of equitable care and access

Decentralized clinical trial (DCT) designs have effectively increased participation by other demographic groups underrepresented in clinical research — specifically older adults, women, and rural populations — as have efforts to integrate research into clinical care.

The Veteran Administration's (VA) Cooperative Studies Program (CSP) is a model for both DCT design and a strong research-clinical collaboration. The VA's CSP provides support to rural and lower complexity sites through the ACCESS program. The VA healthcare system has also increased inclusion of women veterans in research with over 90 studies in the VA Women's Health Practice Based Research Network (PBRN).

Women have historically been excluded from clinical research for a variety of reasons, ranging from historical biases and misogyny, to assumptions of similarity, to belief that hormonal fluctuations could lead to variability in results. Maureen Achebe, MD, MPH (Brigham and Women's Hospital/Harvard Medical School) emphasized that, while some initiatives like the NIH Revitalization Act have aimed to combat underrepresentation, encouraging more women to participate in clinical trials involves addressing several key barriers and implementing strategies to make participation more accessible and appealing. Effective approaches include increasing awareness and education; engaging women from the beginning and throughout the trial process; providing transportation and childcare support; flexible scheduling; and opportunities to participate at home or during routine care.

Abdullah Khan, MBBS (The Ohio State University) highlighted the discrepancy in incidence and participation for older adults in myeloma clinical research; for example, in 75–79-year-olds the cancer incidence is 30% and representation in clinical trials is 8%. To increase representation of older populations in myeloma clinical trials, Khan suggested early enrollment, stratification by age, and alternative outcome analyses. He also stressed the importance of balancing efficacy with safety, including patient and caregiver perspectives, and using tools to assess frailty and fitness in older adults.

When considering how to reach underrepresented populations, including geographically underrepresented, pharmacies can be a resource to researchers. For example, Walgreens pharmacies have a nationwide reach, covering 131 million people, and have the capacity to offer critical education, awareness, outreach, and informed consent for clinical studies. By offering certain clinical trial procedures at its local sites, such as blood draws for laboratory assessments, or vital sign assessments, Walgreens is able to support enhanced access to clinical trials and ease the burden of patients who might otherwise have to travel long distances for relatively simple procedures such as these.

The role of AI in creating more equitable clinical trials

As we move toward systems more reliant on artificial intelligence, it is becoming increasingly important to understand how AI in healthcare impacts health equity. A panel discussion with Shakira Grant, MBBS (U.S. Congress), Warren Kibbe, PhD (National Institutes of Health), Alex Carlisle, PhD (National Alliance Against Disparities in Patient Health), and Rubin Roy (Medicine, Equity, and Technology Initiative) reviewed the promise of AI while emphasizing the work that still needs to be done to develop rigorous standards, hold developers accountable, and build trust with healthcare workers to adopt AI. The panel considered important questions about where training data comes from — Who is the data reflective of? How is bias entrenched in data and thus AI? – and the risks of bias affecting the coding of algorithms for analysis of the data, reminding us that equity from an overall infrastructural perspective must be considered before equity from an AI perspective. Drs. Carlisle and Roy emphasized the need for workforce diversity in this effort, as programmers, bioinformaticians, and clinicians of diverse backgrounds are required.

Leveraging learnings to accelerate progress

Addressing inequities in myeloma clinical research is intrinsic to the MMRF's goal of ensuring every person with multiple myeloma gets optimized treatment, and eventually a cure. The Foundation is taking action to integrate into its research strategy key learnings shared at the Summit.