CURE SICKLE CELL.

National Heart, Lung, and Blood Institute

PUBLICATIONS LIST

The Cure Sickle Cell Initiative is a collaborative, patient-focused research effort dedicated to accelerating the development of treatments aimed at genetic-based cures. Funded by the National Heart, Lung, and Blood Institute (NHLBI), the Initiative complements NHLBI's investment in sickle cell disease research by helping to fill gaps that cannot be covered by traditional funding methods. We bring together the sickle cell disease (SCD) community—patients, advocates, caregivers, providers, researchers, industry, etc.—and consider non-traditional ways to advance research. The following is a list of publications produced since the Initiative started in 2018.

Missing the Mark(ers): Circulating Endothelial Cells and Endothelial-Derived Microvesicles are Elevated in Sickle Cell Disease

https://doi.org/10.3389/fimmu.2024.1493904

23 December 2024

Beckman JD, Zhang P, Nguyen J, Hebbel RP, Vercellotti GM and Belcher JD (2024) Missing the mark(ers): circulating endothelial cells and endothelial-derived extracellular vesicles are elevated in sickle cell disease plasma. Front. Immunol. 15:1493904.

Assessing Psychosocial Risk and Resilience to Support Readiness for Gene Therapy in Sickle Cell Disease: A Consensus Statement

https://doi.org/10.1001/jamanetworkopen.2024.29443

21 August 2024

Hardy, S. J., Crosby, L. E., Porter, J. S., Sil, S., Valrie, C. R., Jonassaint, C. R., ... & Coleman-Cowger, V. H. (2024). Assessing Psychosocial Risk and Resilience to Support Readiness for Gene Therapy in Sickle Cell Disease: A Consensus Statement. JAMA Network Open, 7(8), e2429443-e2429443.

CureSCi Metadata Catalog—Finding and Harmonizing Studies for Secondary Analysis of Hydroxyurea Use for Sickle Cell Disease

https://doi.org/10.1101/2024.08.15.608203

19 August 2024 - PREPRINT

Wu, X., Stratford, J., Kesler, K., Ives, C., Hendershot, T., Kroner, B., ... & Pan, H. (2024). CureSCi Metadata Catalog—finding and harmonizing studies for secondary analysis of hydroxyurea use for sickle cell disease. bioRxiv.

"Treatment with Curative Intent": The Emergence of Genetic Therapies for Sickle Cell Anemia

https://doi.org/10.1182/blood.2023021598

14 March 2024

Benz Jr, E. J., Silberstein, L. E., & Panepinto, J. (2024). "Treatment with curative intent": the emergence of genetic therapies for sickle cell anemia. Blood, 143(11), 967-970.

Gene Therapy versus Common Care for Eligible Individuals with Sickle Cell Disease in the United States: A Cost-Effectiveness Analysis

https://doi.org/10.7326/M23-1520

23 January 2024

Basu, A., Winn, A. N., Johnson, K. M., Jiao, B., Devine, B., Hankins, J. S., ... & Ramsey, S. D. (2024). Gene therapy versus common care for eligible individuals with sickle cell disease in the United States: a cost-effectiveness analysis. Annals of Internal Medicine, 177(2), 155-164.

Long-Term Survival with Sickle Cell Disease: A Nationwide Cohort Study of Medicare and Medicaid Beneficiaries

https://ashpublications.org/bloodadvances/article/doi/10.1182/bloodadvances.2022009202/494890/Long-Term-Survival-with-Sickle-Cell-Disease-A

16 March 2023

Jiao, B., Johnson, K. M., Ramsey, S. D., Bender, M. A., Devine, B., & Basu, A. (2023). Long-Term Survival with Sickle Cell Disease: A Nationwide Cohort Study of Medicare and Medicaid Beneficiaries. Blood Advances. https://doi.org/10.1182/bloodadvances.2022009202

A Framework for a Health Economic Evaluation Model for Patients with Sickle Cell Disease

https://pubmed.ncbi.nlm.nih.gov/36773220/

11 February 2023

Winn, A., Basu, A., & Ramsey, S. D. (2023). A Framework for a Health Economic Evaluation Model for Patients with Sickle Cell Disease to Estimate the Value of New Treatments in the United States of America. PharmacoEconomics - open, 7(2), 313–320. https://doi.org/10.1007/s41669-023-00390-6

Lifetime Medical Costs Attributable to Sickle Cell Disease Among Nonelderly Individuals with Commercial Insurance

https://curesickle.org/system/files/bloodadvances.2021006281.pdf

27 January 2023

Johnson, K., Jiao, B., Ramsey, S. D., Bender, M., Devine, B., & Basu, A. (2023). Lifetime medical costs attributable to sickle cell disease among nonelderly individuals with commercial insurance. Blood Advances, 7(3), 365–374. https://doi.org/10.1182/bloodadvances.2021006281

Secondary Neoplasms After Hematopoietic Cell Transplant for Sickle Cell Disease

https://pubmed.ncbi.nlm.nih.gov/36623245/

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Eapen, M., Brazauskas, R., Williams, D. A., Walters, M. C., St Martin, A., Jacobs, B. L., Antin, J. H., Bona, K., Chaudhury, S., Coleman-Cowger, V. H., DiFronzo, N. L., Esrick, E. B., Field, J. J., Fitzhugh, C. D., Kanter, J., Kapoor, N., Kohn, D. B., Krishnamurti, L., London, W. B., Pulsipher, M. A., ... Horowitz, M. M. (2023). Secondary Neoplasms After Hematopoietic Cell Transplant for Sickle Cell Disease. Journal of clinical oncology : official journal of the American Society of Clinical Oncology, 41(12), 2227–2237. https://doi.org/10.1200/JCO.22.01203

CureSCi Metadata Catalog –Making Sickle Cell Studies Findable

https://pubmed.ncbi.nlm.nih.gov/36508412/

12 December 2022

Pan, H., Ives, C., Mandal, M., Qin, Y., Hendershot, T., Popovic, J., Brambilla, D., Stratford, J., Treadwell, M., Wu, X., & Kroner, B. (2022). CureSCi Metadata Catalog-Making sickle cell studies findable. PloS one, 17(12), e0256248. https://doi.org/10.1371/journal.pone.0256248

Prevalence of Comorbidities Associated with Sickle Cell Disease among Non-elderly Individuals with Commercial Insurance – A Retrospective Cohort Study

https://pubmed.ncbi.nlm.nih.gov/36445914/

29 November 2022

Ramsey, S. D., Bender, M. A., Li, L., Johnson, K. M., Jiao, B., Devine, B., & Basu, A. (2022). Prevalence of comorbidities associated with sickle cell disease among non-elderly individuals with commercial insurance-A retrospective cohort study. PloS one, 17(11), e0278137. https://doi.org/10.1371/journal.pone.0278137

Creating an Automated Contemporaneous Cohort in Sickle Cell Anemia to Predict Survival After Disease Modifying Therapy

https://ashpublications.org/bloodadvances/article/doi/10.1182/bloodadvances.2022008692/487040/Creating-an-Automated-Contemporaneous-Cohort-in

10 November 2022

Cronin, R. M., Wuichet, K., Ghafuri, D. L., Hodges, B., Chopra, M., He, J., Niu, X., Kassim, A., Wilkerson, K., Rodeghier, M., & DeBaun, M. R. (2022). Creating an Automated Contemporaneous Cohort in Sickle Cell Anemia to Predict Survival After Disease-Modifying Therapy. Blood advances, bloodadvances.2022008692. Advance online publication. https://doi.org/10.1182/bloodadvances.2022008692

Application of validated mapping algorithms between generic PedsQL scores and utility values to individuals with sickle cell disease

https://pubmed.ncbi.nlm.nih.gov/35715626/

17 June 2022

Jiao, B., Hankins, J. S., Devine, B., Barton, M., Bender, M., & Basu, A. (2022). Application of validated mapping algorithms between generic PedsQL scores and utility values to individuals with sickle cell disease. Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation, 31(9), 2729–2738. https://doi.org/10.1007/s11136-022-03167-2

Development of a Conceptual Model for Evaluating New Non-Curative and Curative Therapies for Sickle Cell Disease

https://curesickle.org/system/files/Johnson.pone_.2022.pdf

28 April 2022

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Medical and Non-medical Costs of Sickle Cell Disease and Treatments from a US Perspective: A Systematic Review and Landscape Analysis

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26 April 2022

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A landscape analysis and discussion of value of gene therapies for sickle cell disease

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18 April 2022

Quach, D., Jiao, B., Basu, A., Bender, M. A., Hankins, J., Ramsey, S., & Devine, B. (2022). A landscape analysis and discussion of value of gene therapies for sickle cell disease. Expert review of pharmacoeconomics & outcomes research, 22(6), 891–911. https://doi.org/10.1080/14737167.2022.2060823

Process and strategies for patient engagement and outreach in the Sickle Cell Disease (SCD) community to promote clinical trial participation

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Byrnes, C., Botello-Harbaum, M., Clemons, T., Bailey, L., Valdes, K. M., & Coleman-Cowger, V. H. (2022). Process and strategies for patient engagement and outreach in the Sickle Cell Disease (SCD) community to promote clinical trial participation. Journal of the National Medical Association, 114(2), 211–217. https://doi.org/10.1016/j.jnma.2022.01.003

Long-term Survival after Hematopoietic Cell Transplant for Sickle Cell Disease Compared to the United States Population

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Size and density measurements of single sickle red blood cells using microfluidic magnetic levitation

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5-Azacytidine Depletes HSCs and Synergizes with an Anti-CD117 Antibody to Augment Donor Engraftment in Immunocompetent Mice

https://ashpublications.org/bloodadvances/article/doi/10.1182/bloodadvances.2020003841/476701/5-Azacytidine-depletes-hematopoietic-stem-cells

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Bankova, A. K., Pang, W. W., Velasco, B. J., Long-Boyle, J., & Shizuru, J. A. (2021). 5-Azacytidine depletes hematopoietic stem cells and synergizes with an anti-CD117 antibody to augment donor engraftment in immunocompetent mice. Blood Advances. https://doi.org/10.1182/bloodadvances.2020003841

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Gurkan, U. A. (2021). Biophysical and rheological biomarkers of red blood cell physiology and pathophysiology. Current Opinion in Hematology, 28(3), 138–149. https://doi.org/10.1097/moh.0000000000000639

Concurrent Assessment of Deformability and Adhesiveness of Sickle Red Blood Cells by Measuring Perfusion of an Adhesive Artificial Microvascular Network

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https://ashpublications.org/thehematologist/article/475190/Update-on-the-Cure-Sickle-Cell-Initiative

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Tools for Experimental and Computational Analyses of Off-Target Editing by Programmable Nucleases

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Red Blood Cell Adhesion to ICAM-1 is Mediated by Fibrinogen and is Associated with Right-to-Left Shunts in Sickle Cell Disease

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https://pubs.rsc.org/en/content/articlelanding/2020/AN/C9AN02250C#!divAbstract

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Hasan, M., Fraiwan, A., An, R., Alapan, Y., Ung, R., Akkus, A., Xu, J. Z., Rezac, A. J., Kocmich, N., Creary, M. S., Oginni, T., Olanipekun, G., Hassan-Hanga, F., Jibir, B. W., Gambo, S., Verma, A. K., Bharti, P. K., Riolueang, S., Ngimhung, T., . . . Gurkan, U. A. (2020). Paper-based microchip electrophoresis for point-of-care hemoglobin testing. Analyst, 145(7), 2525–2542. https://doi.org/10.1039/c9an02250c

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Accelerating the Science of SCD Therapies—Is a Cure Possible?

https://jamanetwork.com/journals/jama/article-abstract/2748180

8 August 2019

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