

Resources

NATIONAL INSTITUTES OF HEALTH

GENERAL NIH GUIDELINES AND POLICIES

National Institutes of Health (NIH). NIH policy for data and safety monitoring. Bethesda, MD: National Institutes of Health; 1998 Jun 10. Report No.: NOT-98-084. Available from: <https://grants.nih.gov/grants/guide/notice-files/not98-084.html>.

NIH. Guidance on reporting adverse events to Institutional Review Boards for NIH-supported multicenter clinical trials. Bethesda, MD: National Institutes of Health; 1999 Jun 11. Report No.: NOT-99-107. Available from: <https://grants.nih.gov/grants/guide/notice-files/not99-107.html>.

NIH. Further guidance on a data and safety monitoring for phase I and phase II trials. Bethesda, MD: National Institutes of Health; 2000 Jun 5. Report No.: NOT-OD-00-038. Available from: <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-00-038.html>.

Office of Inspector General. Data and Safety Monitoring Boards in NIH clinical trials: meeting guidance, but facing some issues. Washington DC: Department of Health and Human Services; Jun 2013. Report No.: OEI-12-11-00070. Available from: <https://oig.hhs.gov/oei/reports/oei-12-11-00070.pdf>.

INSTITUTE-SPECIFIC GUIDELINES AND POLICIES

The following NIH Institutes have specific DSM guidelines:

National Cancer Institute (NCI): <http://deainfo.nci.nih.gov/grantspolicies/datasafety.pdf>

National Center for Complementary and Integrative Health (NCCIH): <http://nccih.nih.gov/research/policies/datasafety>

National Eye Institute (NEI): <https://nei.nih.gov/funding/policy/policy6>

National Heart, Lung, and Blood Institute (NHLBI): <http://www.nhlbi.nih.gov/funding/policies/dsmpolicy.htm>

National Institute on Aging (NIA): <http://www.nia.nih.gov/research/dea/implementation-policies-human-intervention-studies>

National Institute on Alcohol Abuse and Alcoholism (NIAAA): <http://www.niaaa.nih.gov/ResearchInformation/ExtramuralResearch/ResourcesAppGrantees/guidelines.htm>

National Institute on Allergy and Infectious Diseases (NIAID): <https://www.niaid.nih.gov/grants-contracts/human-subjects>

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS): <https://www.niams.nih.gov/grants-funding/conducting-clinical-research/data-safety-guidelines-policies>

National Institute of Child Health and Human Development (NICHD): <http://www.nidcd.nih.gov/research/clinicalstudies/Information-for-Researchers-and-Health-Professionals/Pages/NIDCD-Guidelines-for-Data-and-Safety-Monitoring-of-Clinical-Trials.aspx>

National Institute on Deafness and Other Communication Disorders (NIDCD): <https://www.nidcr.nih.gov/Research/ToolsforResearchers/Toolkit/DataandSafetyMonitoring.htm>

National Institute of Dental and Craniofacial Research (NIDCR): <http://www.nidcr.nih.gov/GrantsAndFunding/PoliciesandGuidance/ClinicalResearch/DataandSafetyMonitoring.htm>

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK): <http://www.niddk.nih.gov/research-funding/process/human-subjects-research/policies-for-clinical-researchers/data-safety-monitoring-plans/Pages/data-and-safety-monitoring-plans.aspx>

National Institute on Drug Abuse (NIDA): <http://www.drugabuse.gov/Funding/DSMB-SOP.html>

National Institute of Environmental Health Sciences (NIEHS): <https://www.niehs.nih.gov/research/clinical/patientprotections/dsmb/index.cfm>

National Institute of General Medical Sciences (NIGMS): <https://www.nigms.nih.gov/Research/humansubjects/Pages/clinicaltrials.aspx>

National Institute of Mental Health (NIMH): <http://www.nimh.nih.gov/funding/clinical-research/nimh-policy-governing-the-monitoring-of-clinical-trials.shtml>

National Institute of Neurological Disorders and Stroke (NINDS): <https://www.ninds.nih.gov/Funding/Apply-Funding/Application-Support-Library/NINDS-Guidelines-Data-and-Safety-Monitoring>

National Institute of Nursing Research (NINR): <https://www.ninr.nih.gov/sites/www.ninr.nih.gov/files/NINR%20DSM%20Policy%202014%20FINAL.pdf>

FOOD AND DRUG ADMINISTRATION

Food and Drug Administration (FDA). Guidance for clinical trial sponsors: establishment and operation of clinical trial data monitoring committees. Silver Spring, MD: Food and Drug Administration; 2006 Mar. 34 p. Report No.: OMB Control No. 0910-0581. Available from: <https://www.fda.gov/downloads/regulatoryinformation/guidances/ucm127073.pdf>.

FDA. Guidance for clinical investigators, industry, and FDA staff: financial disclosure by clinical investigators. Silver Spring, MD: Food and Drug Administration; 2013 Feb. 35 p. Available from: <https://www.fda.gov/downloads/regulatoryinformation/guidances/ucm341008.pdf>.

OFFICE FOR HUMAN RESEARCH PROTECTIONS

Office for Human Research Protections (OHRP). Unanticipated problems involving risks & adverse events guidance (2007). Washington DC: Department of Health and Human Services; 2007 [updated Mar 21, 2016]. Available from: <https://www.hhs.gov/ohrp/regulations-and-policy/guidance/reviewing-unanticipated-problems/index.html>.

OHRP. Continuing review guidance. Washington DC: Department of Health and Human Services; 2010 [updated Mar 18, 2016]. Available from: <https://www.hhs.gov/ohrp/regulations-and-policy/guidance/guidance-on-continuing-review-2010/index.html>.

INTERNATIONAL

Committee for Medicinal Products for Human Use. Guideline on data monitoring committees. London, UK: European Medicines Agency; 2005 Jul 27. Report No.: EMEA/CHMP/EWP/5872/03 Corr. Available from: http://www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2009/09/WC500003635.pdf.

Efficacy guidelines. London, UK: International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use. Available from: <http://www.ich.org/products/guidelines/efficacy/article/efficacy-guidelines.html>.

International Conference on Harmonisation (ICH). Structure and content of clinical study reports. Geneva, Switzerland: International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use; 1995 Nov 30. 41 p. Report No.: E3. Available from: http://www.ich.org/fileadmin/Public_Web_Site/ICH_Products/Guidelines/Efficacy/E3/E3_Guideline.pdf.

ICH. Statistical principles for clinical trials. Geneva, Switzerland: International Conference on Harmonisation of Technical Requirements for Pharmaceuticals for Human Use; 1998 Feb 5. 39 p. Report No.: E9. Available from: http://www.ich.org/fileadmin/Public_Web_Site/ICH_Products/Guidelines/Efficacy/E9/Step4/E9_Guideline.pdf.

ICH. Integrated addendum to ICH E6(R1): guideline for good clinical practice. Geneva, Switzerland: International Conference on Harmonisation of Technical Requirements for Pharmaceuticals for Human Use; 2016 Nov 9. 66 p. Report No.: E6(R2). Available from: http://www.ich.org/fileadmin/Public_Web_Site/ICH_Products/Guidelines/Efficacy/E6/E6_R2_Step_4_2016_1109.pdf.

Special Programme for Research and Training in Tropical Diseases. Operational guidelines for the establishment and functioning of Data and Safety Monitoring Boards. Geneva, Switzerland: World Health Organization; 2005 44 p. Report No.: TDR/GEN/Guidelines/05.1. Available from: <http://www.who.int/tdr/publications/documents/operational-guidelines.pdf?ua=1>.

FURTHER READING

DAMOCLES Study Group. A proposed charter for clinical trial data monitoring committees: helping them to do their job well. *Lancet*. 2005;365(9460):711-22. PMID: 15721478.

DeMets DL, Califf RM. Lessons learned from recent cardiovascular clinical trials: part II. *Circulation*. 2002;106(7):880-6. PMID: 12176964.

DeMets DL, Fleming TR. The independent statistician for data monitoring committees. *Stat Med*. 2004;23(10):1513-7. PMID: 15122729.

DeMets DL, Furberg CD, Friedman LM. Data monitoring in clinical trials: a case studies approach. New York, NY: Springer US; 2006.

Ellenberg SS, Fleming TR, DeMets DL. Data monitoring committees in clinical trials: a practical perspective. Chichester, West Sussex: J. Wiley; 2002.

Fleming TR, Sharples K, McCall J, Moore A, Rodgers A, Stewart R. Maintaining confidential-

ity of interim data to enhance trial integrity and credibility. *Clin Trials*. 2008;5(2):157-67. PMID: 18375654.

Gordon RS. Clinical trial activity. *NIH Guide Grants Contracts*. 1979;8(8):29.

Heart Special Project Committee. Organization, review, and administration of cooperative studies (Greenberg Report): a report from the Heart Special Project Committee to the National Advisory Heart Council, May 1967. *Control Clin Trials*. 1988;9(2):137-48. PMID: 3396364.

Herson J. Data and safety monitoring committees in clinical trials. Boca Raton, FL: Chapman & Hall/CRC; 2009.

Lachin JM. Conflicts of interest in data monitoring of industry versus publicly financed clinical trials. *Stat Med*. 2004;23(10):1519-21. PMID: 15122730.

Moher D, Hopewell S, Schulz KF, Montori V, Gotzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG. CONSORT 2010 explanation and elaboration: updated guidelines for reporting parallel group randomised trials. *BMJ*. 2010;340:c869. PMID: 20332511.

Morse MA, Califf RM, Sugarman J. Monitoring and ensuring safety during clinical research. *JAMA*. 2001;285(9):1201-5. PMID: 11231751.

Packer M, Wittes J, Stump D. Terms of reference for Data and Safety Monitoring Committees. *Am Heart J*. 2001;141(4):542-7. PMID: 11275917.

Pocock SJ. A major trial needs three statisticians: why, how and who? *Stat Med*. 2004;23(10):1535-9. PMID: 15122734.

Pocock SJ. Current controversies in data monitoring for clinical trials. *Clin Trials*. 2006;3(6):513-21. PMID: 17170035.

Schulz KF, Altman DG, Moher D. CONSORT 2010 statement: updated guidelines for reporting parallel group randomised trials. *BMJ*. 2010;340:c332. PMID: 20332509.

SCT Working Group on Data Monitoring, Dixon DO, Freedman RS, Herson J, Hughes M, Kim K, Silverman MH, Tangen CM. Guidelines for data and safety monitoring for clinical trials not requiring traditional data monitoring committees. *Clin Trials*. 2006;3(3):314-9. PMID: 16895048.

Tereskerz PM, Guterbock TM, Kermer DA, Moreno JD. An opinion and practice survey on the structure and management of data and safety monitoring boards. *Accountability in research*. 2011;18(1):1-30. PMID: 21287412.