

Clinical Trial and Clinical Epidemiology

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Other Faculty Members

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Major Scientific Interests of the Group

Clinical trial and clinical epidemiology have been evolved in modern medicine. That helps to understand the conceptual gaps between structured experience of basic science and the more complex, open-ended problems arising for the care of patients. Based on the principals of clinical trials and the use of clinical epidemiology, we tried to provide the evidence towards improving the care of the patients.

Projects for Regular Students in Doctoral or Master's Programs

- 1) The members of our research group take challenges on the development and application of epidemiologic techniques and provide relevant evidences for diagnosis, treatment and prevention.
- 2) Biostatistics is applied statistics for medical and biological research, and aims to develop, apply, advice on statistical methodology for study design and data analysis in the research.

Study Programs for Short Stay Students (one week – one trimester)

- 1) The Department provides the environment to learn the principles of clinical epidemiology through practical implementation of researches.
- 2) The Department also provides an environment to pursue research and education in biostatistics. The research in the department is categorized by methodology and practice.

Selected Publications

- 1) Ferdous F, Ma E, Raqib R, Wagatsuma Y. Birth weight influences the kidney size and function of Bangladeshi children. *J Dev Orig Health Dis*. 2017 Dec 17:1-9.
 - 2) Tafida MA, Wagatsuma Y, Ma E, Mizutani T, Abe T. Descriptive epidemiology of traumatic spinal injury in Japan. *J Orthop Sci*. 2018 Mar;23(2):273-276.
 - 3) Rashid H, Ma E, Ferdous F, Ekström EC, Wagatsuma Y. First-trimester fetal growth restriction and the occurrence of miscarriage in rural Bangladesh: A prospective cohort study. *PLoS One*. 2017 Jul 21;12(7):e0181967.
 - 4) Raqib R, Ahmed S, Ahsan KB, Kippler M, Akhtar E, Roy AK, Lu Y, Arifeen SE, Wagatsuma Y, Vahter M. Humoral Immunity in Arsenic-Exposed Children in Rural Bangladesh: Total Immunoglobulins and Vaccine-Specific Antibodies. *Environ Health Perspect*. 2017 Jun 14;125(6):067006.
 - 5) Saito N, Sugiyama K, Ohnuma T, Kanemura T, Nasu M, Yoshidomi Y, Tsujimoto Y, Adachi H, Koami H, Tochiki A, Hori K, Wagatsuma Y, Matsumoto H. Efficacy of polymyxin B-immobilized fiber hemoperfusion for patients with septic shock caused by Gram-negative bacillus infection. *PLoS One*. 2017 Mar 30;12(3):e0173633.
 - 6) Yamaguchi Y, Misumi T, Maruo K. A comparison of multiple imputation methods for incomplete longitudinal binary data. *Journal of Biopharmaceutical Statistics*. 2017 DOI: 10.1080/10543406.2017.1372772
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- 7) Goshi M, Maruo K, Tada K, Hirakawa A. Utilization of chi-square statistics for screening adverse drug-drug interactions in spontaneous reporting systems. *European Journal of Clinical Pharmacology*. 2017; 73: 779-786.
 - 8) Maruo K, Yamaguchi Y, Noma H, Goshi M. Interpretable inference on the mixed effect model with the Box-Cox transformation. *Statistics in Medicine* 2017; 36: 2420-2434.
 - 9) Shimura M, Goshi M, Hirakawa A. Comparison of conditional bias-adjusted estimators for interim analysis in clinical trials with survival data. *Statistics in Medicine* 2017; 36: 2067-2080.
 - 10) Sato Y, Goshi M, Nagashima K, Takahashi S, Ware JM, Laird NM. Statistical Methods in the Journal — an update. *New England Journal of Medicine* 2017; 376: 1086-1087.
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