

# 感染性物質を含有する可能性のある人体試料等の理化学試験に関する ガイドラインと川崎市健康安全研究所における検討について

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## Guideline for biosafety in physical and chemical laboratory and related study in Kawasaki City Institute for Public Health

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### Abstract

Prefectural and municipal public health institutes have tested human samples, such as blood and urine, of patients with chemical food poisoning to analyze the harmful substances present in them. Because these samples may contain pathogens, guidelines for their treatment are required to prevent sample-mediated infections in microbiological laboratories. We developed a biosafety guideline for physical and chemical laboratories to establish biosafety strategies, wherein we suggested that the inspection status and sample-borne infection risk in the determination of infectious samples at each institute should be considered. Additionally, we listed the important elements to be considered while establishing the handling and management methods for preventing the accidental exposure to infectious samples while performing physical and chemical experiments. These elements assess the exposure risk of each process in the physical and chemical experiments, select the handling method according to the risk, provide the personnel with instructions on biosafety, consider the infection prevention measures, such as vaccination to the person in charge, supervise and record the performance of inspections, and establish the protocols for dealing with the accident. In this study, the handling and management methods at one institute could be established in accordance with this guideline. In the institute, wet human samples are decided to be treated as infectious samples based on standard precautions, while dry human samples can be treated in the same way as food and environmental samples. The guideline would be useful in treating infectious samples in physical and chemical laboratories.

**Keywords** : バイオセーフティ、理化学実験室、ガイドライン、人体試料、感染性試料

biosafety, physics and chemical laboratory, guideline, human samples, infectious samples

## I 緒言

地方衛生研究所(地衛研)は、各自治体の衛生行政の科学的、技術的中核として、食中毒のような健康危機管理事象発生時に原因究明のための検査を行っている。地衛研の検査部門は、微生物検査部門と理化学検査部門に分かれており、前者は微生物を原因として疑う事象の、後者は化学物質を原因として疑う事象の原因究明検査を

担う。例えば化学物質を原因とする食中毒の場合、検査対象となる検体は、原因食品の他に、患者(有症者)の血液・尿・吐物等の人体試料も想定される。化学物質が原因の食中毒は発生頻度が低く、また地衛研の理化学検査部門では多くの機関で通常検査に人体試料を用いないため、受け入れ体制が十分に整っているとはいえない。人体試料には感染性物質が含まれる可能性もあるため、曝露事故等の未然防止を図るなど安全に配慮した取扱い