

COMPLEMENTARITY OF DUAL ISO 15189 AND CAP LAB ACCREDITATION IN EUROPE: INSIGHTS FROM A BELGIAN CLINICAL LABORATORY.

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Background

Accreditation is essential for ensuring high-quality services in medical laboratories. Having been Belac° ISO accredited since 1995, the lab decided to achieve an additional CAP Lab accreditation in 2024. Traditionally, the focus in Europe is mainly on ISO with CAP not being as well established. This case study describes the comparison between these two lab accreditations and the challenges of dual accreditation for a European clinical lab.

*Belgian National Accreditation Body

Differences



ISO15189:2022

vs.

CAP



| | | |
|------------------------------------|--|---|
| PRESENCE | Mainly Europe, Australia, Africa, India, China and Japan | Mainly US, Middle East, Singapore and Hong Kong |
| REQUIREMENTS | Focus = process (QMS approach across the entire organisation) 1 standard for all medical labs Based on other ISO guidelines Focus on risk management Update: 5-10years | Focus = emphasis on technical and procedural aspects + lab director + safety and hygiene plan Detailed, technical (how) Checklist by department/discipline Based on CLIA, FDA, CLSI guidelines, "Best practices" Focus on safety (e.g. patient, chemical) Update: yearly |
| AUDIT | | |
| Scope | Selection by lab based on reimbursement | All tests for medical diagnosis/applications within same lab and with same Lab Director |
| Frequency | Cfr. Belac guidelines (15 months) By Belac certified auditors | Y0: 2 yearly audit from CAP peer inspectors Y1: 2 yearly self-inspection |
| Report | All requirements in scope Conform + non-conform | All applicable checklists <input checked="" type="checkbox"/> Only 'citations' (non-conform) |
| Corrective actions | Within 1-6 months | Within 1 month |
| LAB DIRECTOR QUALIFICATIONS | Clinical biologist (pharmacist) Clinical biologist (MD) | Clinical biologist (pharmacist with PhD) Clinical biologist (MD) |
| TRAINING & COMPETENCE | Lab's own training program | 6 elements of CLIA + higher frequency |
| PROFICIENCY TESTING | Acc. to National law and scope(€) | All CAP PT programs scope (€€€) |
| QA IMPROVEMENT | Internal audits, Risk Analysis, Management Review, feedback | Competence and process control |
| IMPLEMENTATION | | |
| Duration | 10-12 months | 12-18 months after PT participation |
| Cost | €€ | €€€ |

Complementary nature and synergistic benefits

Both standards exhibit significant complementarity in core areas such as quality management, equipment calibration, quality control, and documentation. ISO15189 provides a solid foundation in quality management principles, while CAP adds depth in specific practice-oriented areas, notably in personnel competence, proficiency testing, inter-laboratory comparisons, and clinical practice guidelines. The pursuit of dual accreditation forces a critical evaluation of current procedures, enhances the robustness of the quality management system and fosters a culture of continuous improvement and staff involvement in quality initiatives. It increases international recognition (pharma and scientific world) and facilitates regulatory inspections (national, FDA).

Conclusion: although it requires a significant time and financial investment, dual accreditation offers complementary strengths that significantly elevate the quality and reliability of laboratory services when combined. European laboratories striving for excellence in clinical diagnostics or clinical trials can greatly benefit from pursuing dual accreditation. This holistic approach not only ensures compliance with international regulations but also fosters a culture of best practices, quality and continuous development and improvement, ultimately leading to enhanced patient care outcomes.



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