



Laboratory Organisation and Networking Concepts in a Modern Lab

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In today's ecological environment in medicine, cost saving has become increasingly important. Laboratory staff accounts for the majority of expenses so lean processes are therefore necessary. In addition, advanced technology is often not available in rural areas or in large countries of the less developed world. Yet, if these technologies can be provided to the periphery, better output and more importantly better outcomes can be achieved.

In order to optimize our organisation of the lab, we have evaluated and thereafter implemented various novel information techniques (IT) in our haematology lab. With this, we were able to shorten turn-around-times, avoid unnecessary laborious steps, and shift technical staff to new workstations in the lab, where well-trained staff are definitively needed. This reorganisation further allowed better compliance with the ISO 15189 (accreditation) requirements, e.g. traceability and documentation.

In addition, cooperation with 12 smaller partner hospitals and general private laboratories, where no in dept expertise in haematology is available, was possible through implementation of "telehematology" after evaluation of the necessary prerequisites for successful implementation. With this, relatively easy, rapid and safe support can be provided to remote places allowing for high quality healthcare when needed and avoiding unnecessary referrals. It can be envisioned that such systems will provide even more useful service in large countries.

Taken together, utilisation of modern IT – technologies will allow optimisation of laboratory processes, increase quality and safety and will help establish a functional network among healthcare partners.