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Point of care testing – trends and challenges

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Point of care testing (POCT) in hospitals is focused mainly on glucose testing, but other tests including pregnancy, coagulation, cardiac markers, HIV, blood gas, electrolytes and hemoglobin testing are commonly performed. Specific requirements for POCT devices include ease of use, data capture-transmission, and operator lockout. Nowadays there are many types of tests and testing that can be performed away from the confines of a hospital. For home testing a trend has been to minimize steps performed by the operator and this has been achieved using disposable electronics. Also, the consumer now has access to numerous locations that provide direct testing (e.g., pharmacies, Retail Health Clinics), and many routes to obtain medical tests (e.g., Direct to Consumer Testing via the internet, and collection kits for drugs of abuse and infectious disease tests available from a pharmacy). However, new technologies are creating unprecedented possibilities for self-testing and monitoring (e.g., contact lens, microneedle, digital, and tattoo-based systems), the most important being the explosion of tests and medical apps on phones and tablets. In the long run greater access to simple medical tests, combined with home tele-health systems, P4 Medicine (Personalized, Predictive, Preventive, Participatory), and efforts to slash the costs of laboratory testing (Wellness Centers) may create a new era in healthcare.



\*アクセスは次のHPを参照ください。

<http://www.kawasaki-net.ne.jp/sozo/access/index.html>

主催: 東京大学大学院工学系研究科「機械システム・イノベーション」プログラム (GMSI)  
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