HOWEST University of Applied Sciences

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Professional Bachelor Biomedical Laboratory Science 2016-2017
Medical laboratory technology
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Bachelor project: Comparison of three systems for immunohematological analyzes

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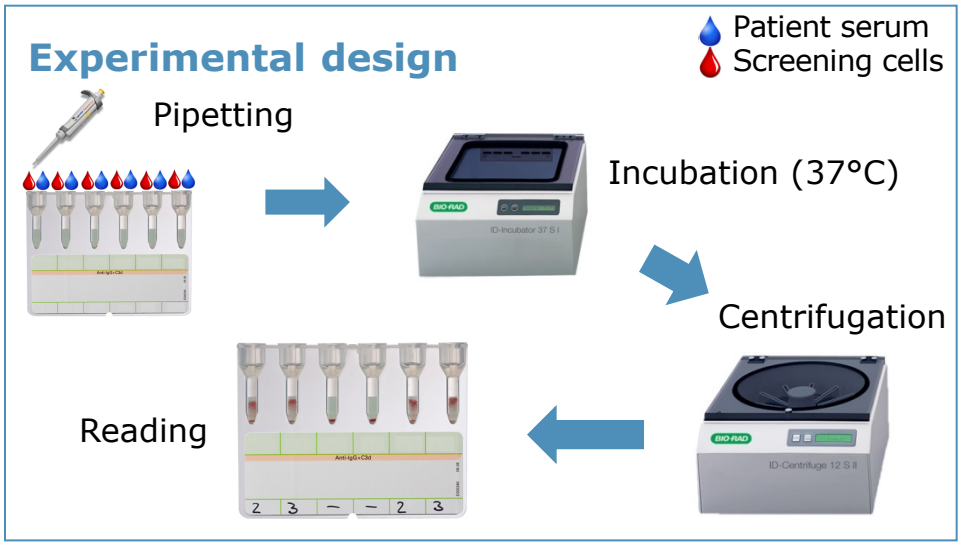
Aim

The purposes of this study were to evaluate the performance of a new automated system for immunohematological analyzes (Erytra® - DG Gel; Grifols) and to compare the data with two widely used systems, namely Ortho BioVue (AutoVue®; OCD) and DiaMed-ID (ID-Gelstation®; Bio-Rad).

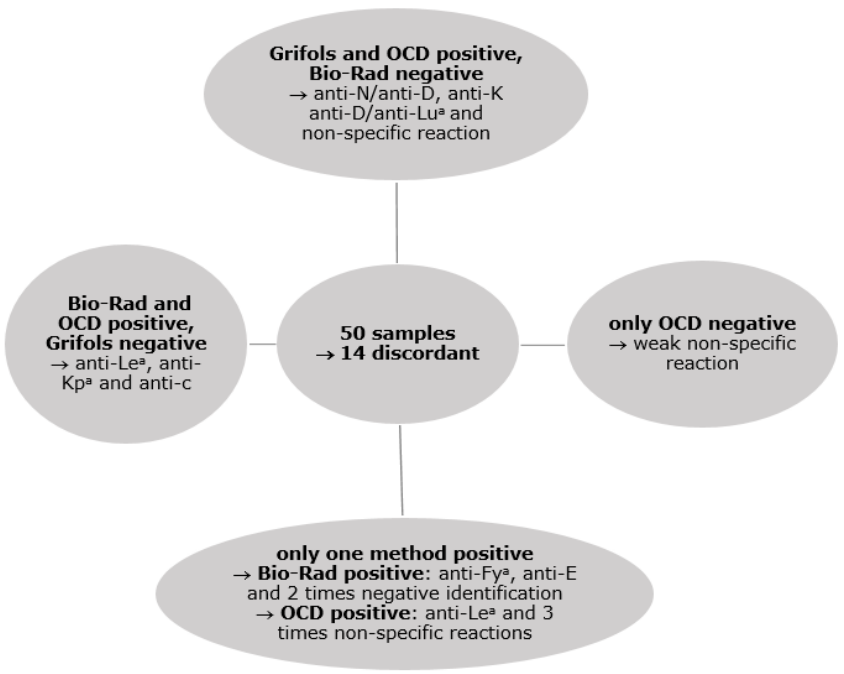
The focus will be placed here on the screening and identification of the indirect antiglobulin test (IAT). This is necessary in pretransfusion tests and during pregnancy.

Experimental design



Results

IAT – screening



IAT - identification

	Methods used		
	All methods	Bio-Rad and Grifols	OCD and Grifols
Total	20	7	16
Concordant	17	7	11
Discordant	3	0	5
Missed by OCD	Anti-Kp[a] Anti-D + anti-Lu[a] Anti-C	/	Extra anti-D (2) Non-specific reactions (2)
Missed by Grifols	/	/	Non-specific reactions

Conclusion

IAT – screening

- Minimal differences in sensitivity
- OCD is more sensitive but aspecific
- Bio-Rad is equal to Grifols

IAT – identification

- Grifols performed equal to Bio-Rad and OCD
- Sometimes enzyme phase was more susceptible to anti-Rhesus antibodies
- Coombs screening proved less sensitive to anti-Le[a]

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