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## RARE BLOOD PROGRAMME IN CHINA

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**Background and Object:** Finding compatible blood for patients to meet the needs of rare blood transfusion, and set up a rare blood bank in China in order to improve transfusion safety.

**Materials and Methods:** The programme was implemented to screen large numbers of donors for blood types. Implementation steps included obtaining broad community endorsement of the concept, educating blood center personnel, developing educational materials, developing a computer system to facilitate selection of donors to be test, doing the laboratory testing to identify rare blood and notifying the rare donors. In 2005, the following rare antibodies were used: anti-GPA, -GPC, -Wrb, -Kell, -H, -I, -Coa, -Dib, -Jra, -Vel, -Lan, -PP1Pk, -Lub, -Fya, -Oka, -Mur, -Rh29. Over 600,000 Chinese donors were screened their rare blood antigens by different serology methods including tube, gel, a modified indirect antiglobulin test, 120 well Olympus microplat techniques as well as DNA typing and urea lyses test. A monoclonal antibody preparation system has been established.

**Results:** 51 rare blood donors have been identified including Rhnull, Rh:-33, Ko Lan- Vel-, Tja-, Lub-, Coa- JK(a-b-), Di(a+b-) and para-Bombay. To the end of 2005, 6 regional blood centers have added to this screening programme. A center frozen storage facility was established in Shanghai. Five transgenic cell line have been established and two hybridoma have been produced which have the specificity of anti-GPA and anti-I, respectively.

**Conclusion:** Automated methods are available for mass screening. However, manual methods also can be used when a large numbers of donors should be screening. China rare donor program has an active program in place to provide rare blood for patients in need.