

**PERANCANGAN APLIKASI  
REGISTRASI SPESIMEN DAN PENYAMPAIAN HASIL  
SKRINING HIPOTIROID KONGENITAL STUDI KASUS : RSUP DR. M. DJAMIL  
PADANG**



**TESIS**

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## ABSTRAK

### PERANCANGAN APLIKASI REGISTRASI SPESIMEN DAN PENYAMPAIAN HASIL SKRINING HIPOTIROID KONGENITAL STUDI KASUS : RSUP-DR. M. DJAMIL PADANG

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Laboratorium Skrining Hipotiroid Kongenital (SHK) RSUP. Dr. M. Djamil sebagai salah satu pengampu SHK belum mampu memfasilitasi pelayanan SHK secara optimal karena sistem pengelolaan data secara manual yang menimbulkan risiko keterlambatan proses administrasi, kerusakan spesimen, kesalahan pencatatan spesimen dan berubahnya data. Tujuan penelitian ini adalah untuk melakukan analisis kebutuhan, perancangan, pembangunan, dan mengukur dampak pemanfaatan sistem informasi digital dalam mengurangi risiko yang timbul pada pengelolaan data SHK manual. Penelitian dilakukan secara *mixed methode* dengan pendekatan model *Analysis, Design, Development, Implementation dan Evaluation* (ADDIE) terhadap sistem pencatatan spesimen dan penyampaian hasil yang sedang berjalan dengan menggabungkan *Agile Model Driven Development* (AMDD). Penelitian didahului dengan studi kualitatif berupa analisis kebutuhan perangkat lunak dilanjutkan dengan studi kuantitatif untuk mengukur dampak implementasi komputersasi terhadap kecepatan pengelolaan data SHK. Didapatkan rata-rata proses pengelolaan data SHK dengan aplikasi adalah selama 1 menit 40 detik sedangkan pada proses manual dilakukan selama 11 menit 35 detik. Pemanfaatan sistem informasi digital dapat mengatasi permasalahan pengelolaan data SHK secara manual. *Monitoring* data SHK dapat dilakukan langsung oleh Dinas Kesehatan mengurangi risiko perubahan data. Pemanfaatan Aplikasi registrasi spesimen dan penyampaian hasil SHK telah mengembalikan fungsi peran Fasyankes dalam menyiapkan data spesimen SHK dan sekaligus membebaskan Laboratorium SHK dari tugas pencatatan data spesimen dan mengembalikan pada peran pemeriksaan SHK. Kata kunci : skrining hipotiroid kongenital, pencatatan, penyampaian, hasil, aplikasi

## ABSTRACT

### APPLICATION DESIGN OF SPECIMEN REGISTRATION AND RESULT REPORTING CONGENITAL HYPOTHYROID EXAMINATION CASE STUDY: DR. M. DJAMIL PADANG HOSPITAL

By : Catur Suharinto

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The Congenital Hypothyroidism Screening (CHS) Dr. M. Djamil Hospital Laboratory as one of the providers of CHS has not been able to facilitate CHS services optimally because CHS data management which is still manual creates the risk of delays in the administrative process, specimen damage, errors in recording specimens and unintentional data changes. The aim of this research is to carry out needs analysis, design, development and measure the impact of using digital information systems in reducing risks arising from manual CHS data management. Mixed method research has been carried out using the Analysis, Design, Development, Implementation and Evaluation (ADDIE) model to the ongoing CHS data management system by combining Agile Model Driven Development (AMDD) and systems theory to design the CHS specimen registration and result reporting system. This research was preceded by a qualitative study which is software needs analysis and continued with a quantitative study to determine the impact of computerization implementation on the speed CHS data management. On average, the SHK registration and reporting process using the application takes 1 minute 40 seconds, faster than the manual of 11 minutes 35 seconds. Utilization of digital information systems in CHS registration and reporting applications can overcome the problem of managing SHK data manually. Monitoring of CHS data can be carried out directly by the City/Regency and Provincial Health Services; and reduce the risk of data changes. Utilization of the application has restored the role of health facilities in preparing CHS specimen data and at the same time freed the SHK laboratory from the task of recording specimen data and returned to the role.

Key words : congenital hypothyroidism screening, register, reporting, result, application