

# Identifikasi isolat spesies candida dari berbagai bahan klinik menggunakan medium kromogenik dibandingkan dengan fisiologi dan morfologi

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## Abstrak

Latar belakang penelitian: Identifikasi spesies Candida penting untuk diagnosis, penentuan jenis obat dan prediksi kepekaan jamur terhadap obat anti fungal. Selama ini identifikasi dilakukan dengan uji konvensional: fisiologi-morfologi, yang relatif lama, hingga diagnosis dini sukar ditegakkan. Mengatasi masalah tersebut telah dikembangkan medium kromogenik yang mampu membedakan beberapa spesies Candida berdasarkan warna koloni. medium kromogenik yang saat ini tersedia di Indonesia adalah CHROMagar-Candida.

Tujuan penelitian: Membandingkan cara identifikasi Candida spp. dengan metode konvesional dan medium kromogenik CHROMagar Candida, serta mengetahui spesifisitas dan sensitivitasnya

Metodologi penelitian: Penelitian merupakan uji diagnostik. Sebanyak 134 sampel ditanam pada agar Sabouraud Dekstrosa dan dipurifikasi (340 isolat). Setiap isolat diidentifikasi dengan CHROMagar Candida, uji fisiologi dan morfologi (agar tajin/tepung jagung-Tween 80, dan uji pembentukan germ tube).

Hasil dan kesimpulan: Dengan CHROMagar-Candida, dapat diidentifikasi 148 (43,5%) isolat, 192 (56,7%) tidak dapat diidentifikasi. Spesies yang teridentifikasi: C. tropicalis (21,5%) koloni berwana ungu di tengah pucat di tepi, C. albicans (11,8%) warna koloni hijau terang, C parapsilosis (5,9%) koloni berwana putih hingga merah jambu pucat, C glabrata (2,1%) koloni merah jambu pucat dengan permukaan koloni halus, C krusei (0,3%) koloni merah jambu pucat dengan permukaan koloni kasar dan Trichosporon sp (2,1%) koloni berwana abu-abu dengan tipe koloni halus dan kasar. Yang tidak dapat diidentifikasi, C pelliculosa, C. guilliermondii, C. langeroni, C Intermedia, C mogii, C lusitaniae, C utilis, C fennica, C obtuse, C sphaerica, C famata dan R. rubra.

Spesifisitas dan sensitivitas CHROMagar-Candida untuk identifikasi C trop/calls 80,8% dan 27,8%, C albicans 99,3% dan 65,5%, C parapsilosis 96,9% dan 100%, Trichosporon sp 100% dan 21,8%.

CHROMagar-Candida tidak dapat menggantikan uji konvensional dalam mengidentifikasi Candida spp, terutama Candida non-C albicans.

<hr><i>Identification Of Candida Species From Clinical Specimens, Using Chromogenic Medium, Physiology And Morphology Test.Background : Species identification of Candida is important to establish to diagnosis, to determine the medicine needed and also to predict susceptibility of fungi to antifungal drugs. Up to now, identification is conducting using conventional method i.e. physiology-morphology which is time consuming. Thus early diagnosis could not be established. To offer come this problem chromogenic medium has been develop to distinguish species of Candida based on the colour of colony. Chromogenic medium that find on Indonesia is CHROMagar-Candida.

Aim :To compare CHROMagar Candida and conventional method in identification of Candida spp. specificity and sensitivity of CHROMagar Candida was also determined. Research Methodology: This study diagnostic investigation using cross sectional design. Those were 134 samples plated on Sabouraud Dektrosa Agar/SDA than purified that yields 340 isolates. It is isolate was identified by CHROMagar Candida and conventional method.

**Result and Conclusions:** Using CHROMagar 148 (43.5%) isolates can be identified were as 192 (56.7%) could not be identified. Species that can be identify were : C. tropicalis (21.5%) with purple colour in the centre and pale purple at the edge of colony, C alb/cans (11.8%) with bright green colour, C parapsilosis (5.9%) with white to pale pink, C. glabrata (2.1%) has a pale pink colour and smooth surface, C krusei (0.3%) is pale pink and rough surface, and Trichosporon sp. (2.1%) is gray with smooth or rough surface. Species that can not be identified by CHROMagar-Candida were : C pelliculosa, C guilliermondii, C langeroni, C intermedia, C mogii, C.lusitaniae, C utilis, C fenica, C. obtuse, C. sphaerica, C fanata, and R. rubs

Specificity and sensitivity CHROMagar Candida identifying C. tropicalis is 80.8% and 27.8%, C. alb/cans is 99.3% and 65.5%, C.parapsllosis is 96.9% and 100%, Trichosporon sp is 100% and 21.8% consecutively. Although conventional can not replace by CHROMagar Candida especially for Candida non C alb/cans identifications.</i>