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## Comparison on the consistency between Celercare M1 and Beckman Coulter AU5400 automatic biochemical analyzer

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**【Abstract】 Objective:** To compare the consistency of Celercare M1 Automatic Biochemical Analyzer (referred to as Celercare M1) and Beckman Coulter AU5400 (referred to as Beckman AU5400).

**Methods:** According to the document EP15-A of national Committee for Clinical Laboratory Standards and actual situation, BIO-RAD middle controls were used to evaluate the precision of Celercare M1 by repeatedly and continuously detecting 4 times, 5 days; 40 patients' serum were collected, use AU5400 as reference system and Celercare M1 as testing system respectively to determine nine hepatorenal function index (ALT、AST、GGT、TP、ALB、UREA、Cr、GLU and TBIL) in all, then analyze the correlation of two systems.

**Results:** The within-run and between-run precision of 9 items of hepatorenal function index were in the range of 1/4 or 1/3 CLIA'88 or the statement of manufacturers; ALT、AST、GGT、TP、ALB、UREA、Cr、GLU and TBIL of the two automatic biochemical analyzers have good correlation ( $r > 0.975$ ); all the bias of TBIL are more than TEa which is unacceptable, meanwhile the other bias are acceptable.

**Conclusions:** Celercare M1 is reliable and convenient which can meet the demand of clinical detection.

**【Key words】** Comparison measurement; Beckman Coulter AU5400 automatic biochemical analyzer; Celercare M1 Automatic Biochemical Analyzer.