# ES Complex clinical investigation: Hepatitis Screening Test
## (as reference HBV /HCV /Biopsy and Metavir) : Specificity and Sensitivity

**Ianni Filho D. New approach for large scale screening for the asymptomatic hepatic virus infection and liver fibrosis.  UNICAMP University 2011.**

## Detection Hepatitis virus infection



Delta 21-22

Sensitivity: 87.5
Specificity: 76.0
Criterion : <=5
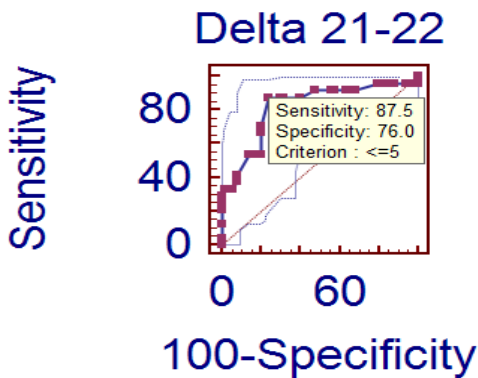
| Variable | Delta_21_22 Delta 21-22 |
|---|---|
| Classification variable | Diagnostic |
| Sample size | 74 |
| Positive group :  Diagnostic = 1 | 24 |
| Negative group :  Diagnostic = 0 | 50 |
| Disease prevalence (%) | 32.4 |
| Area under the ROC curve (AUC) | 0.819 |
| Standard Error [a] | 0.0570 |
| 95% Confidence Interval [b] | 0.712 to 0.899 |
| z statistic | 5.594 |
| Significance level P (Area=0.5) | <0.0001 |

[a] DeLong et al., 1988
[b] Binomial exact



Stiffness Index

Sensitivity : 95.83
Specificity : 74
Criterion : > 7.56
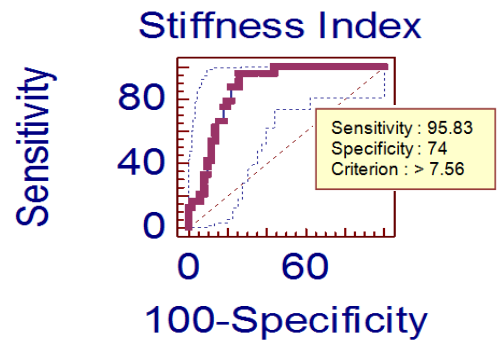
| Variable | Stiffness_Index Stiffness Index |
|---|---|
| Classification variable | Diagnostic_1 Diagnostic 1 |
| Sample size | 74 |
| Positive group :  Diagnostic 1 = 1 | 24 |
| Negative group :  Diagnostic 1 = 0 | 50 |
| Disease prevalence (%) | 32.4 |
| Area under the ROC curve (AUC) | 0.864 |
| Standard Error [a] | 0.0418 |
| 95% Confidence Interval [b] | 0.764 to 0.932 |
| z statistic | 8.712 |
| Significance level P (Area=0.5) | <0.0001 |

[a] DeLong et al., 1988
[b] Binomial exact

## Detection hepatic fibrosis



ROC Curve, Hepatitis true =1 (10 )

Model (area)
—10 (0.960938)
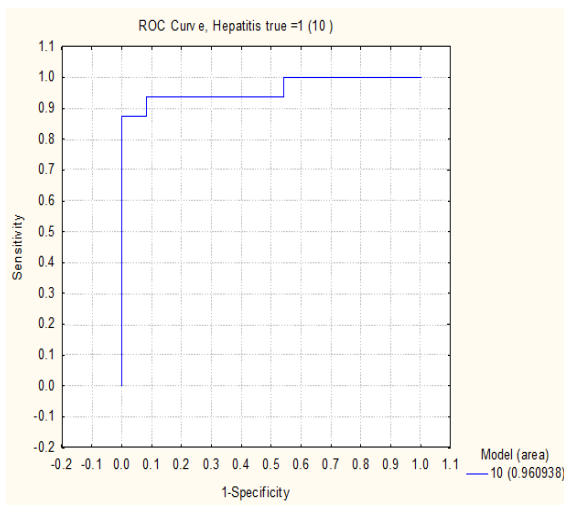
|  | Hepatitis true =1.1.10 | Hepatitis true =1.0.10 |
|---|---|---|
| Total | 24.0000 | 16.00000 |
| Correct | 24.0000 | 14.00000 |
| Wrong | 0.0000 | 2.00000 |
| Unknown | 0.0000 | 0.00000 |
| Correct(%) | 100.0000 | 87.50000 |
| Wrong(%) | 0.0000 | 12.50000 |
| Unknown(%) | 0.0000 | 0.00000 |