REPORTING ON AASLD 2017

ADVANCES IN CHRONIC HEPATITIS C: MANAGEMENT AND TREATMENT

COMPREHENSIVE EXPERT REVIEW AND DISCUSSION OF KEY PRESENTATIONS

HCV OUTCOMES IN CIRRHOTICS – DECOMPENSATED DISEASE/SURVIVAL

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ADVANCES IN CHRONIC HEPATITIS C: MANAGEMENT AND TREATMENT

COMPREHENSIVE EXPERT REVIEW AND DISCUSSION OF KEY PRESENTATIONS

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SURVIVAL BENEFIT OF DIRECT-ACTING ANTIVIRAL THERAPY IN PATIENTS WITH DECOMPENSATED CIRRHOSIS

Kim WR, et al.

Abstract LB-27

STUDY AIM AND METHODS

- Aim: Comparison of observed incidence of deaths in patients with hepatic decompensation in the SOLAR studies with mortality predicted by survival models derived from HCV patients with hepatic decompensation prior to DAA availability
- SOLAR studies
  - Phase 2 trials of sofosbuvir/ledipasvir + RBV for 12 or 24 weeks
  - Patients with Child-Pugh class B or C
  - Dataset used to represent “OBSERVED” data
- Organ Procurement and Transplantation Network (OPTN) data
  - Model development cohort: HCV patients on the waiting list as of January 1, 2007
    Model validation cohort: HCV patients on the waiting list as of January 1, 2008
  - Patients selected met SOLAR study eligibility criteria
  - Dataset used to represent “EXPECTED” data
- Multivariate proportional hazards regression analysis to develop the prediction model
- Observed vs expected (O/E) survival compared in the validation data set

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PATIENT CHARACTERISTICS

OBSERVED GROUP

SOLAR Patients Groups 1 and 2	CTP-B (n=123)	CTP-C (n=89)
Age (yr)	56.3 (8.8)	57.1 (7.3)
Male, n (%)	88 (71.5)	59 (66.3)
White, n (%)	115 (93.5)	83 (93.3)
HE 1-2, n (%)	63 (51.2)	70 (78.7)
HE 3-4, n (%)	0	7 (7.9)
MELDNa	14.2 (3.1)	18.8 (4.0)
Sodium (mEq/L)	137.4 (3.2)	134.4 (4.9)
Creatinine (mg/dL)	0.9 (0.2)	0.9 (0.3)
INR	1.3 (0.2)	1.4 (0.2)
Bilirubin (mg/dL)	2.1 (1.1)	3.8 (2.1)
Albumin (g/dl)	3.0 (0.4)	2.5 (0.4)
Continuous variables present mean (SD)		

EXPECTED GROUP

OPTN Patients	Development Cohort (n=2,071)	Validation Cohort (n=899)	p
Age (yr)	53.6 (6.8)	53.4 (6.8)	0.90
Male, n (%)	1,346 (65.0)	617 (68.6)	0.05
White, n (%)	1,503 (72.6)	624 (69.4)	0.29
HE 1-2, n (%)	1,323 (63.9)	546 (60.7)	0.09
HE 3-4, n (%)	51 (2.5)	16 (1.8)	
MELDNa	15.2 (4.7)	15.9 (4.9)	<0.01
Sodium (mEq/L)	137.3 (3.8)	136.8 (3.9)	<0.01
Creatinine (mg/dL)	1.0 (0.3)	1.0 (0.3)	0.44
INR	1.4 (0.5)	1.4 (0.8)	0.03
Bilirubin (mg/dL)	2.2 (1.4)	2.3 (1.5)	0.02
Albumin (g/dl)	3.1 (0.6)	3.0 (0.6)	<0.01
Continuous variables present mean (SD)			

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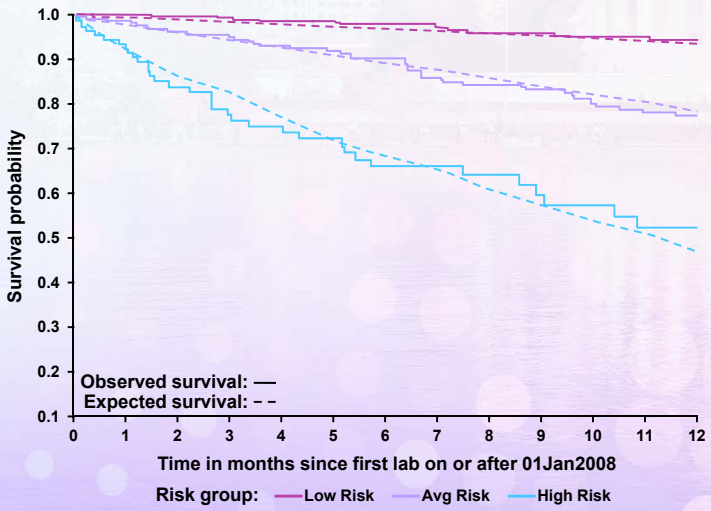
VALIDATION COHORT: OBSERVED VS EXPECTED SURVIVAL



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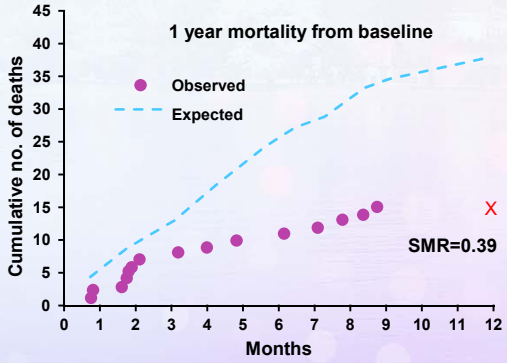
OBSERVED VS EXPECTED (O/E) SURVIVAL

Observed Versus Expected (O/E) Survival



X represents last observed death carried forward to the end of 1 year follow-up from the start of therapy (not an additional death)

- SOLAR data: 15 deaths within 1 year of therapy
- O/E survival: Not different for the first 100 days standardized mortality rate (SMR)=0.57
- By the 9th death (124 days): statistically significant reduction in death (SMR=0.50, 95% CI: 0.26-0.97)
- SMR at 1 year: 0.39 (95% CI: 0.24-0.65)
- When post 12-week treatment data were used, the model predicted subsequent mortality accurately

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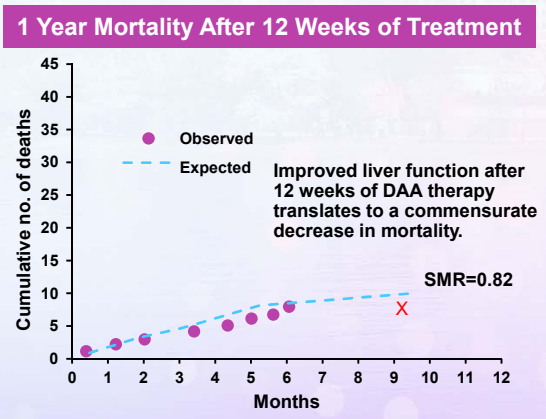
1 YEAR MORTALITY AFTER 12 WEEKS OF TREATMENT



X represents last observed death carried forward to the end of 1 year follow-up from the start of therapy (not an additional death)

- When post 12-week treatment data were used, the model predicted subsequent mortality accurately

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CONCLUSION

- DAA therapy is associated with significant decrease in mortality risk in patients with decompensated HCV cirrhosis, by as much as 60% within the first year of therapy

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