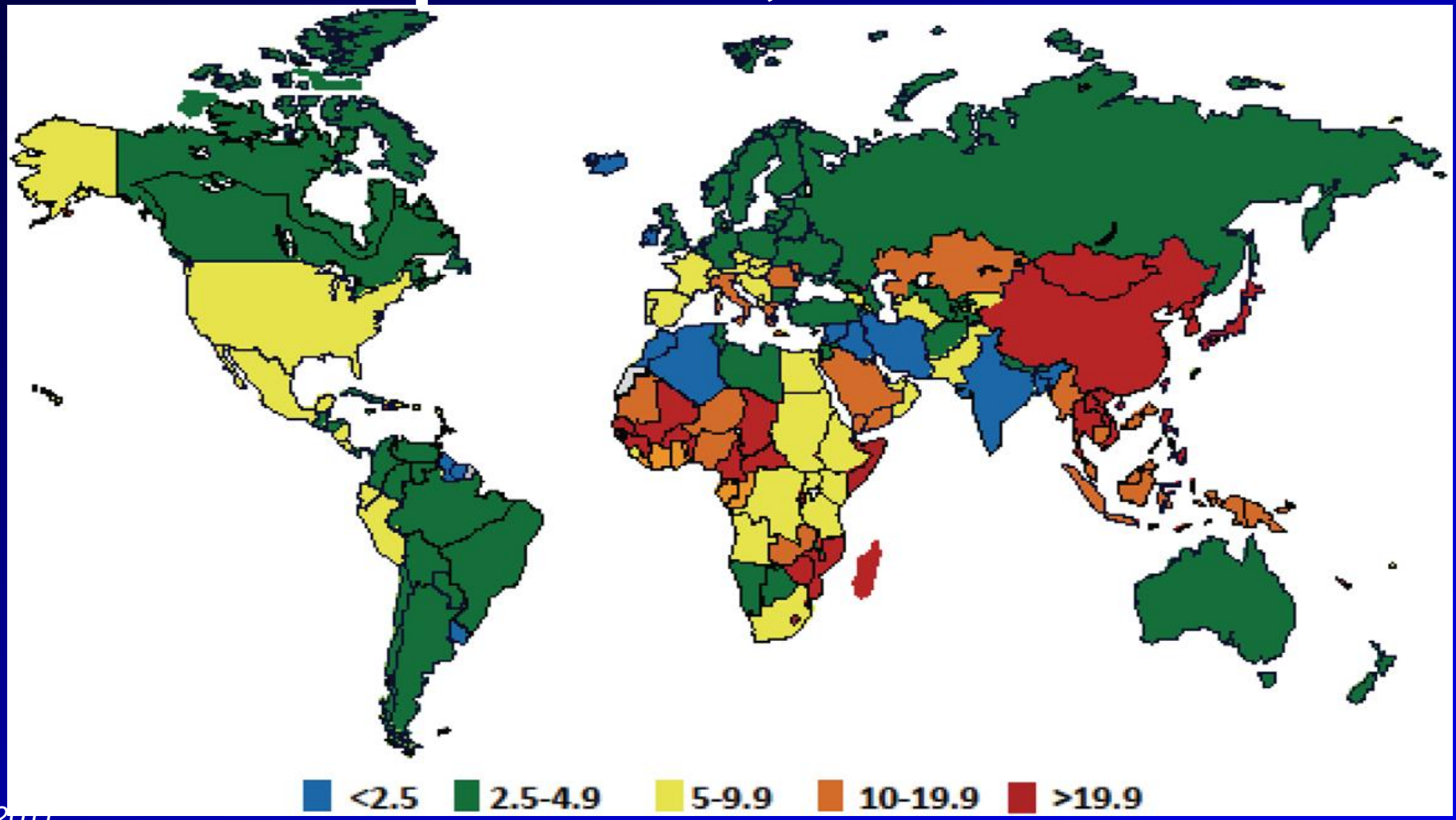
National Screening for HCC in Israel

A Dream come True

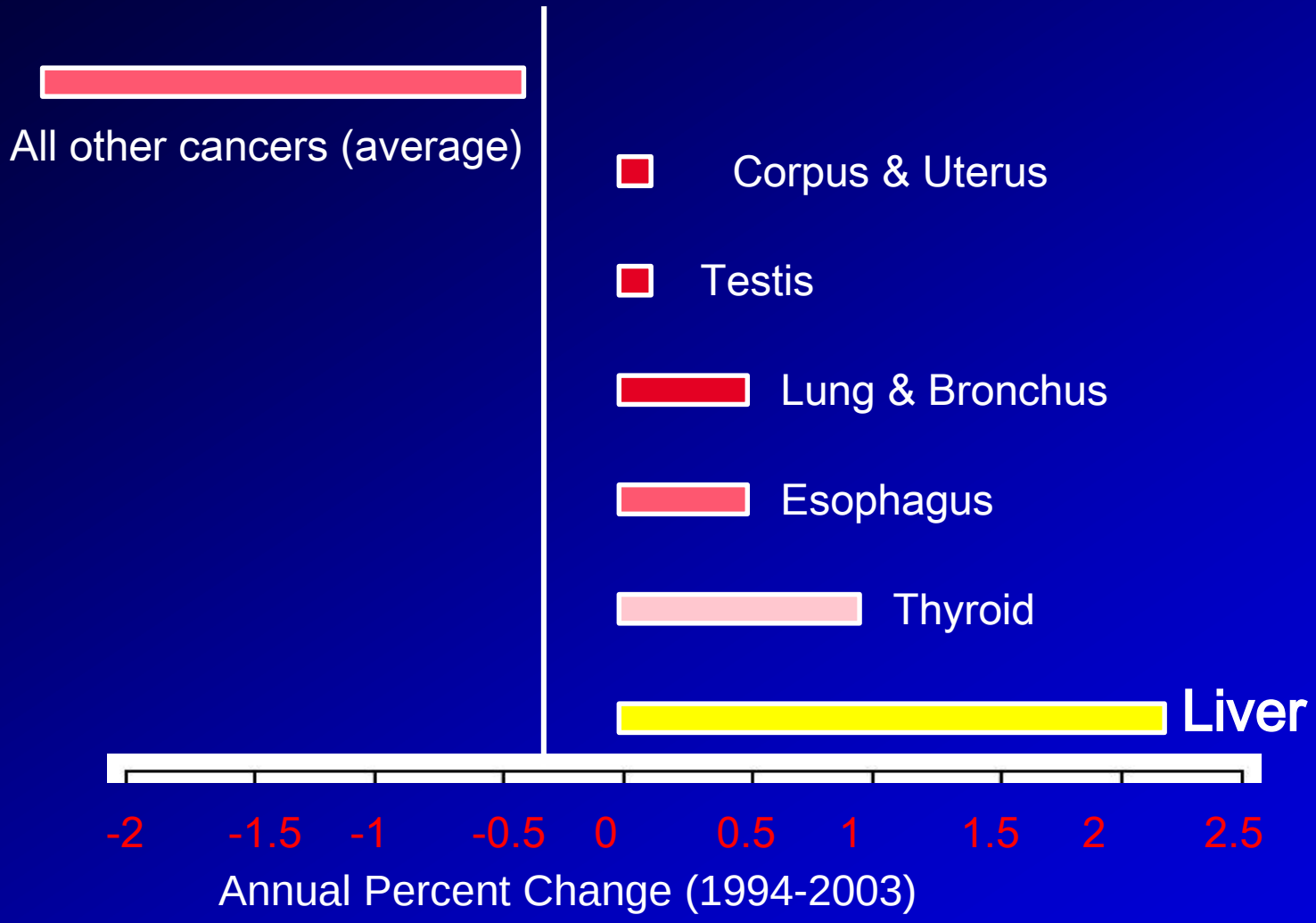
Jacob Sosna, MD and Rifaat Safadi M.D
ISRA And IsSLD

Overall incidence of HCC per 100,000



UpToDate 2011:
High incidence ≥15 cases/100,000
Intermediate incidence 4-14 cases/100,000
Low incidence ≤3 cases/100,000

Mortality from HCC is rising worldwide



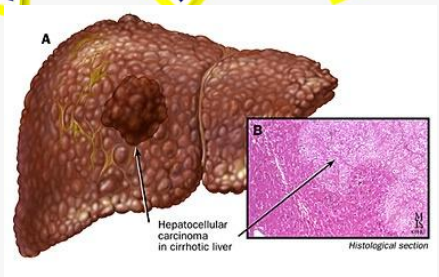
El-Serag Rudolph, Gastroenterology, 2007

Hepatic Fibrosis is the Liver's Wound Healing Response

Hepatitis Viruses

Alcohol

Inherited Metabolic Disorders



Fibrosis & HCC

Drugs

Excess Vitamin A

Cholestatic Disorders

Immune Disorders

Do we have an acceptable test for HCC?

Ultrasound (US)

(ILCA 2007 BARCELONA, AASLD 2010)

- US – is the method of choice for screening, it has an adequate sensitivity, specificity and positive and negative predictive values

- Based upon studies on tumor volume doubling time, US should be performed every 6 months

Surveillance-Alfafetoprotein (AFP)

(AASLD 2010)

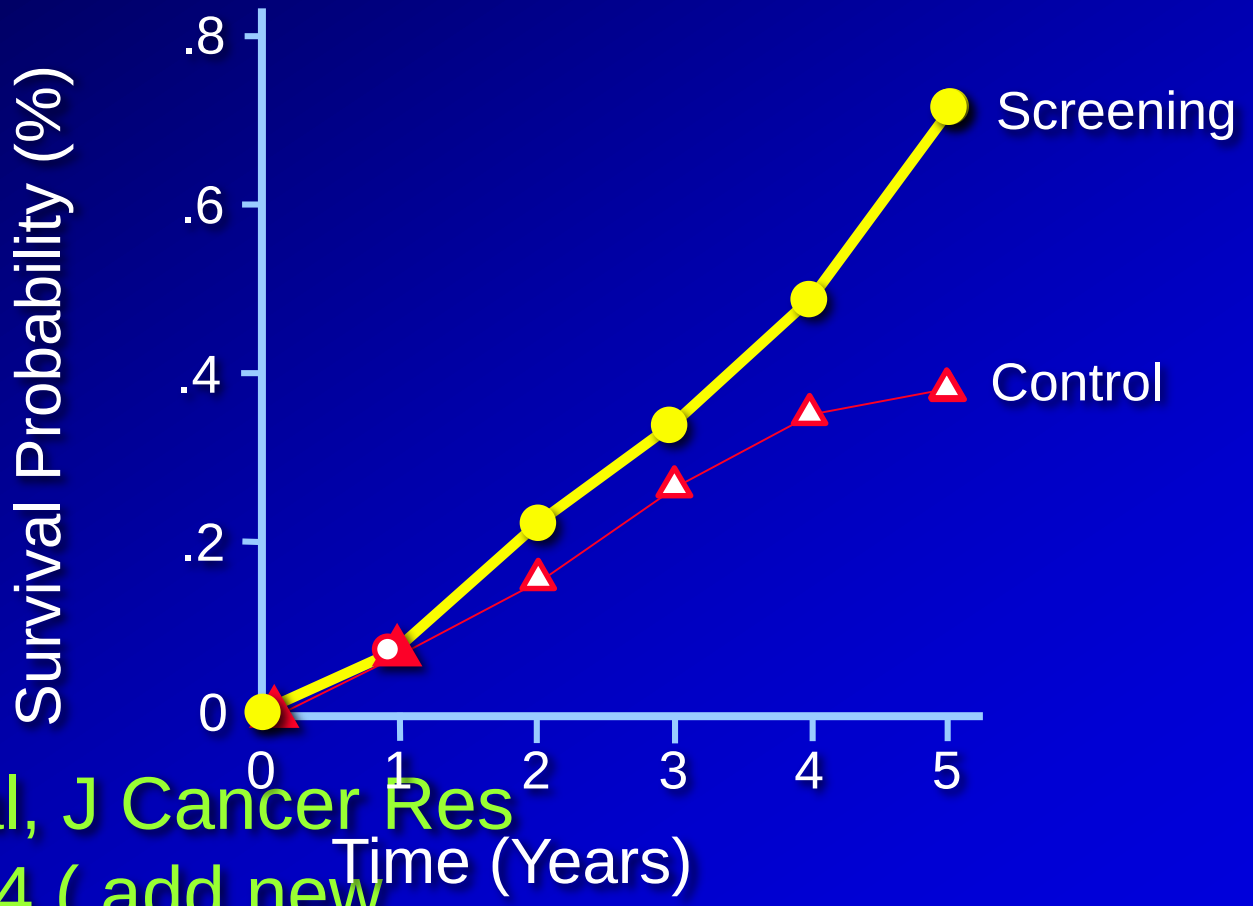
No longer considered by EASL/AASLD

a tool for screening

due to the high rate of

false positive and false negative results

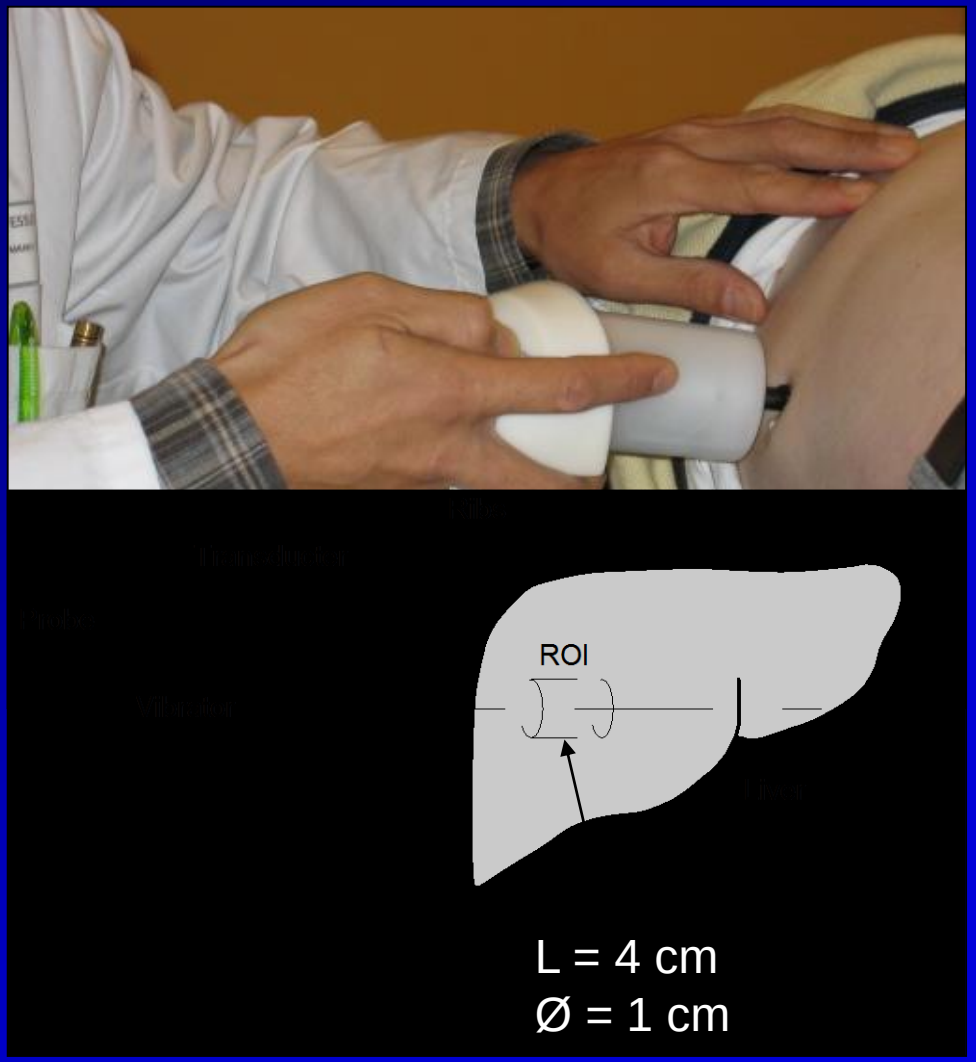
Surveillance for HCC Reduces Mortality:
A Randomized Controlled Trial



Zhang BH, et al, J Cancer Res Clin Oncol 2004 (add new reference???

Fibroscan

Courtesy of M. Ziol



Guha et al, Gut 2006

Occult Cirrhosis (OC) by Transient Elastography (TE)

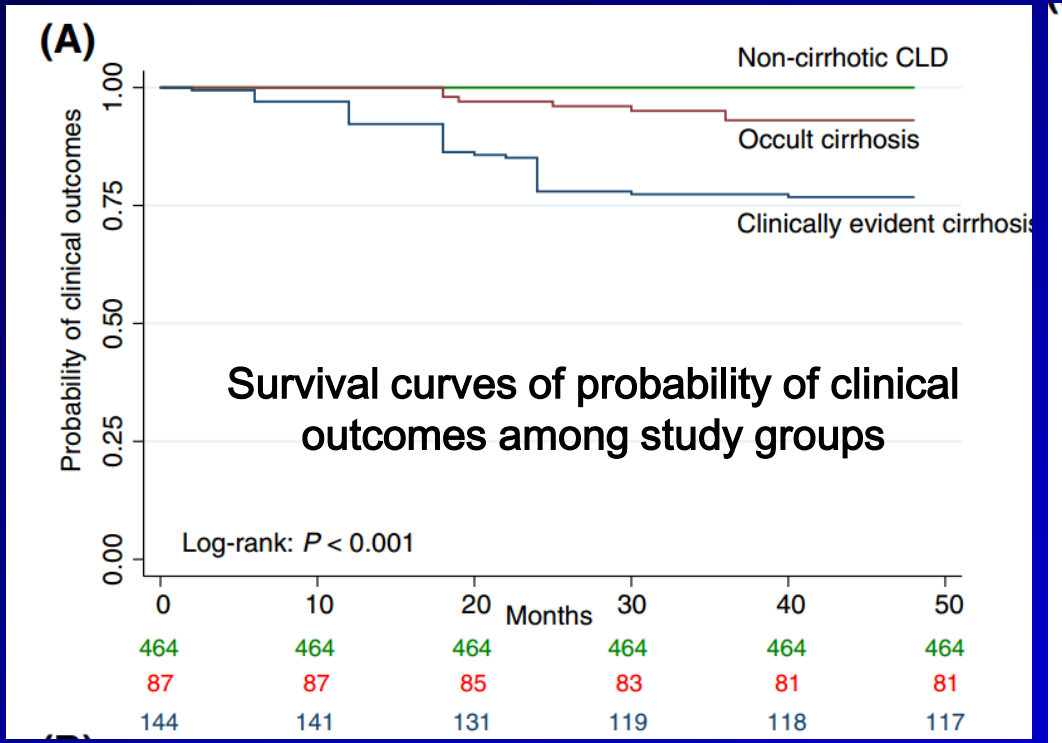
N=871:

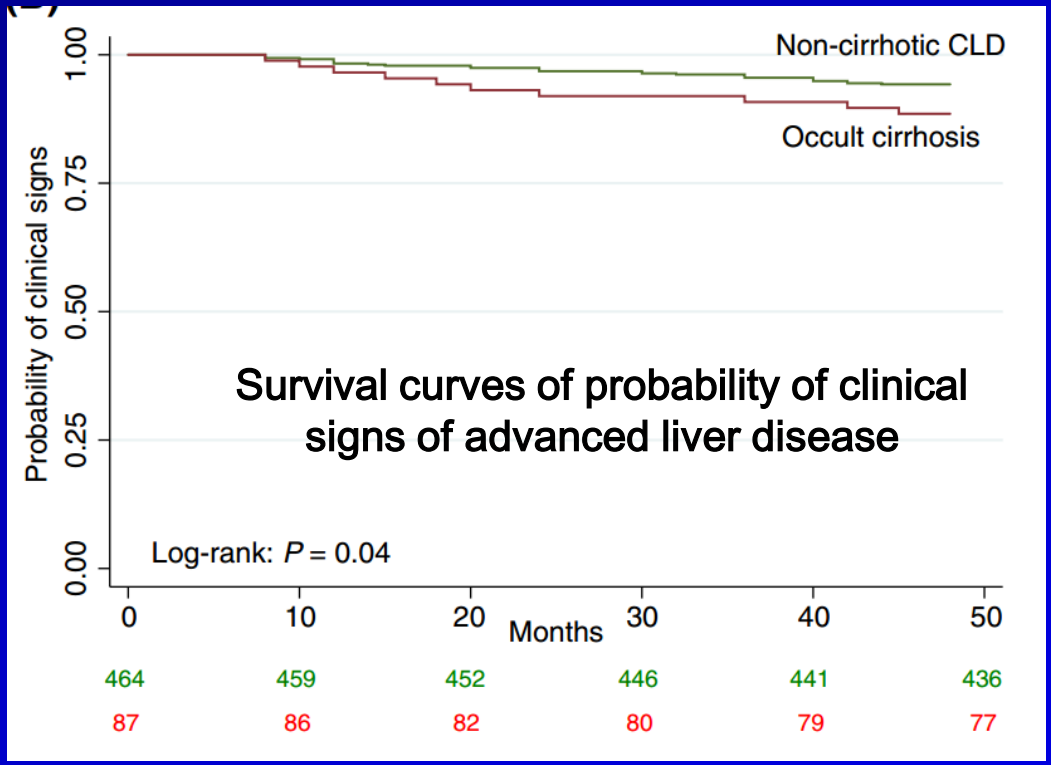
- ✓ OC (TE ≥ 13 kPa and no sign of cirrhosis; **12%**
- ✓ Clinically evident cirrhosis (TE ≥ 13 kPa with signs of cirrhosis); **37%**
- ✓ Non-cirrhotic CLD (TE < 13 kPa); **51%**

Liver Int. 2015;35(10):2285-93

Occult Cirrhosis (OC) by Transient Elastography (TE)

N=871: median follow-up 24 months (range 20–37)





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Current State in Israel

Surveillance is worse in NASH & HBV

HCC – Hadassah cohort 161 patients 6/2011 – 6/2015					
	All, N=160	HCV, N=62	NASH, N=33	HBV, N=23	P
Surveillance	81/160 (50%)	42/62 (67%)	12/32 (38%)↓	10/23 (43%) ↓	
Early HCC Stages	57/81 (70%)	30/42 (71%)	8/12 (75%)	6/10 (60%)	

Surveillance: Normal US/CT every 6 m' before HCC diagnosis

What is expected ?

- US, CT or MRI must be performed or interpreted at an experienced center.

- Recommendations by a multi-disciplinary team of:
  - » Radiologists, hepatologists, oncologists & surgeons

  - » For: resection, chemoemoloization, tumor ablation therapy, medical treatment and radiation.

Current Status

- Screening is based on personal preference
- No national data on exact number of patients at risk
- No follow up data
- No accredited centers for US screening

Current Imaging Status

- Screening done in different places by varying radiologists and technologists
- Workup for detected lesions done at different centers with varying technological equipment and technique of imaging
- Multidisciplinary meetings at centers discretion

Current Imaging Status

- Structured reporting missing (LIRADS, Milan etc..)
- Pre transplantation reporting consistency needed

National Program

התוכנית הלאומית למניעה וגילוי מוקדם של סרטן הכבד

- Imaging part
- Clinical part

National Program

- Central registry of patients at risk
- Biannual screening with patient notification
- The percentage of screened patients as a quality metric
- Inclusion of HCV treatments

National Program

- Accredited Imaging and Liver centers in each part of the country (by ISRA, MOH)
- Accepted reporting

What are the Next Steps?

- Steering committee
- White paper on components of the program by the societies
- Involve all stakeholders from MOH, Kuppot Holim, patient representative, pharma
- Media Interest