

Interactive lab reports- Concept sheet and future

Dr AVS Suresh MD DM PDCR ECMO

Chief Scientific Officer & Project Head



The evolution of lab reports

1920s

- Only doctors used to get the actual lab values

1950s

- Lab reference ranges started appearing on the reports

1990s

- The abnormal values are highlighted

2000s


- Literature regarding the text started appearing

Lab results what we Know

- Blood tests remain alpha - numerical unless accompanied by interpretation and logical analysis.
- It is not that easy to interpret laboratory results without domain knowledge.
- The analysis of results shall explain about current health, risks for disease, and potential appropriate therapy and response to it

Regular Report

Patient Name : **MR TESTING**
 Age / Sex : 32 Year(s) / Male
 Ref. Doctor : SELF
 Ref. Customer : SELF
 Sample & SID : SERUM - 212321

Patient ID : 
 Collection Centre : MPL-AS-TESTING
 Sample Drawn Date : 2016-03-10 00:00
 Registration Date : 2016-03-10 11:36
 Report Date : 2016-03-10 11:40

CLINICAL BIOCHEMISTRY

TEST DESCRIPTION	RESULT	UNITS	REFERENCE RANGES
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THYROID PROFILE I

TriIodothyronine Total (TT3)

Method: Chemiluminescence

564.8

ng/dL

80 – 253 : 1 Yr – 10 Yr
 76 – 199 : 11 Yr – 15 Yr
 69 – 201 : 16 Yr – 18 Yr
 60 – 181 : > 18 years

Thyroxine - Total (TT4)

Method: Chemiluminescence

15.9

ug/dL

4.6-12.5

Thyroid Stimulating Hormone (TSH)

Method: Ultrasensitive Chemiluminescence

0.04

uIU/mL

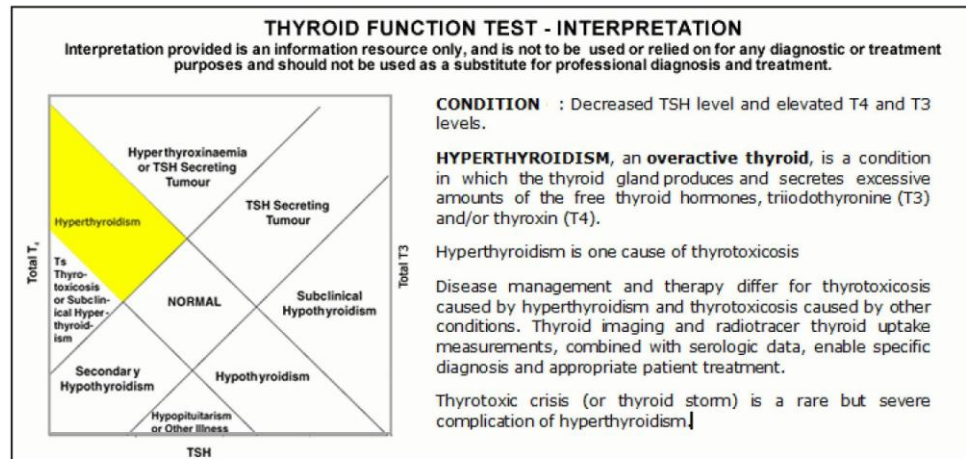
0.52-16.0 : 1 Day - 30 Days
 0.55-7.10 : 1 Mon - 5 Yrs
 0.37-6.00 : 6 Yrs - 18 Yrs
 0.35-5.50 : 18 Yrs - 55 Yrs
 0.50-8.90 : > 55 yrs

Probability of understanding – 30%

Improvised Report

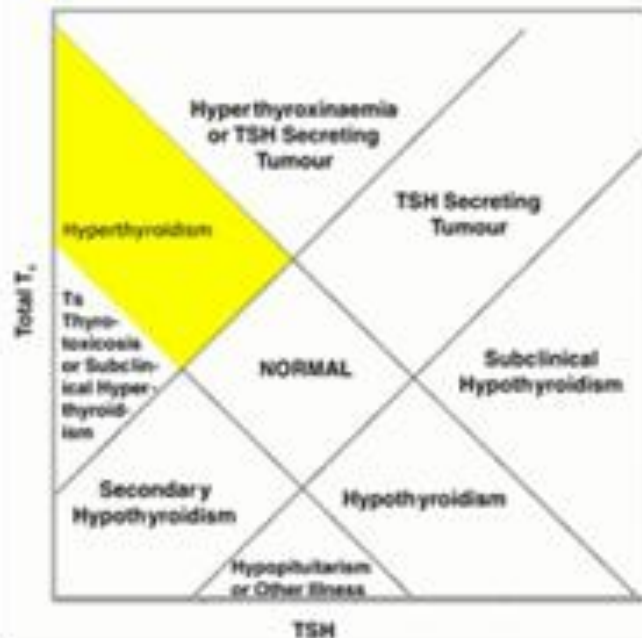
CLINICAL BIOCHEMISTRY			
TEST DESCRIPTION	RESULT	UNITS	REFERENCE RANGES
THYROID PROFILE I			
Triiodothyronine Total (TT3) <i>Method: Chemiluminescence</i>	564.8	ng/dL	80 – 253 : 1 Yr – 10 Yr 76 – 199 : 11 Yr – 15 Yr 69 – 201 : 16 Yr – 18 Yr 60 – 181 : > 18 years
Thyroxine - Total (TT4) <i>Method: Chemiluminescence</i>	15.9	ug/dL	4.6-12.5
Thyroid Stimulating Hormone (TSH) <i>Method: Ultrasensitive Chemiluminescence</i>	0.04	uIU/mL	0.52-16.0 : 1 Day – 3 Days 0.55-7.10 : 1 Yr – 5 Yrs 0.37-6.00 : 6 Yrs – 18 Yrs 0.35-4.00 : 18 Yrs – 55 Yrs 0.60-8.90 : > 55 yrs

Probability of understanding – 50%



THYROID FUNCTION TEST - INTERPRETATION

Interpretation provided is an information resource only, and is not to be used or relied on for any diagnostic or treatment purposes and should not be used as a substitute for professional diagnosis and treatment.



CONDITION : Decreased TSH level and elevated T4 and T3 levels.

HYPERTHYROIDISM, an **overactive thyroid**, is a condition in which the thyroid gland produces and secretes excessive amounts of the free thyroid hormones, triiodothyronine (T3) and/or thyroxine (T4).

Hyperthyroidism is one cause of thyrotoxicosis

Disease management and therapy differ for thyrotoxicosis caused by hyperthyroidism and thyrotoxicosis caused by other conditions. Thyroid imaging and radiotracer thyroid uptake measurements, combined with serologic data, enable specific diagnosis and appropriate patient treatment.

Thyrotoxic crisis (or thyroid storm) is a rare but severe complication of hyperthyroidism.]



Evolution

46-50 years < 0.06

Note : Registered MED ID will keep a track to your clinical stats.

Risk Level	2015/11/29 Visit 1	2015/11/30 Visit 2	2015/12/02 Visit 3	Visit 4	Visit 5	Visit 6	Visit 7	Visit 8
1 VERY LOW OR	0.2							
2 NORMAL BUT LOW OR			2.0					
3 OPTIMAL OVARIAN RES								
4 HIGH OVARIAN RESERVE		8.7						
5 VERY HIGH OR (PCOS)								

Probability of understanding – 70%

NORMAL BUT LOW OVARIAN RESERVE

=> Low AMH levels (alone) do not predict low IVF success rates in women under 35.

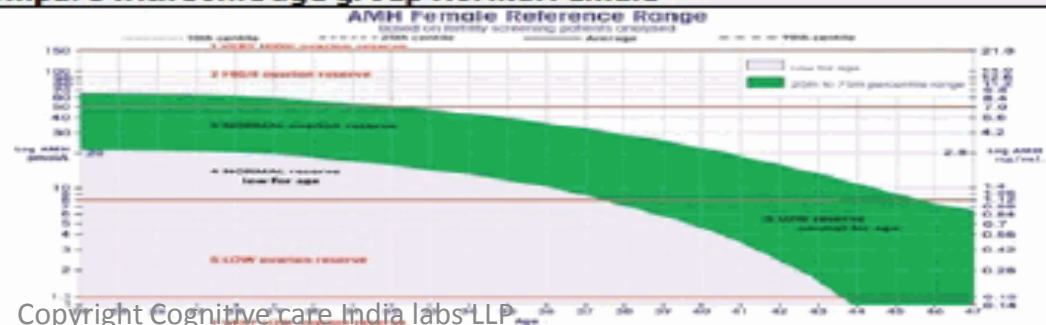
=> Couples should not be excluded from attempting IVF due to low AMH values alone because live birth success rates were reasonable in these cases.

=> In a male infant, absence or low levels of AMH may indicate a problem with the AMH gene located on chromosome 19 that directs AMH production and may be seen with absent or dysfunctional testicles. Lack of male hormones may result in ambi

METHOD: AMH is measured using dual monoclonal antibodies in a CLIA with an Analytical sensitivity of 0.01 ng/mL.

Female : Insert the given value to compare with some age group Normal Female

NOTE: The above Given Risk Level Interpretation is not age specific and is an information resource only and is not to be used or relied on for any diagnostic or treatment purposes and should not be used as a substitute for professional diagnosis and treatment. Kindly Correlate clinically.



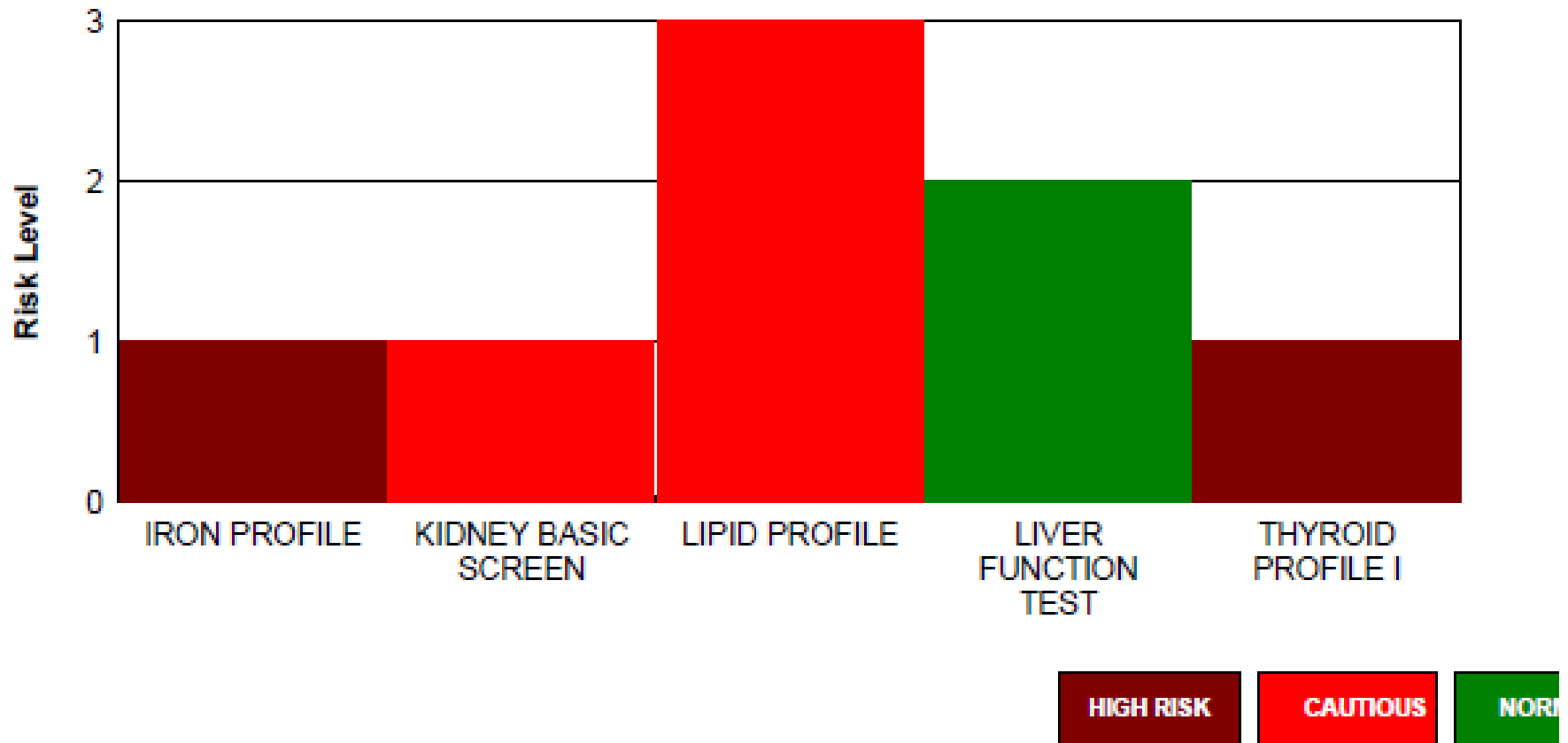
BHARAT KUMAR

Age : 32

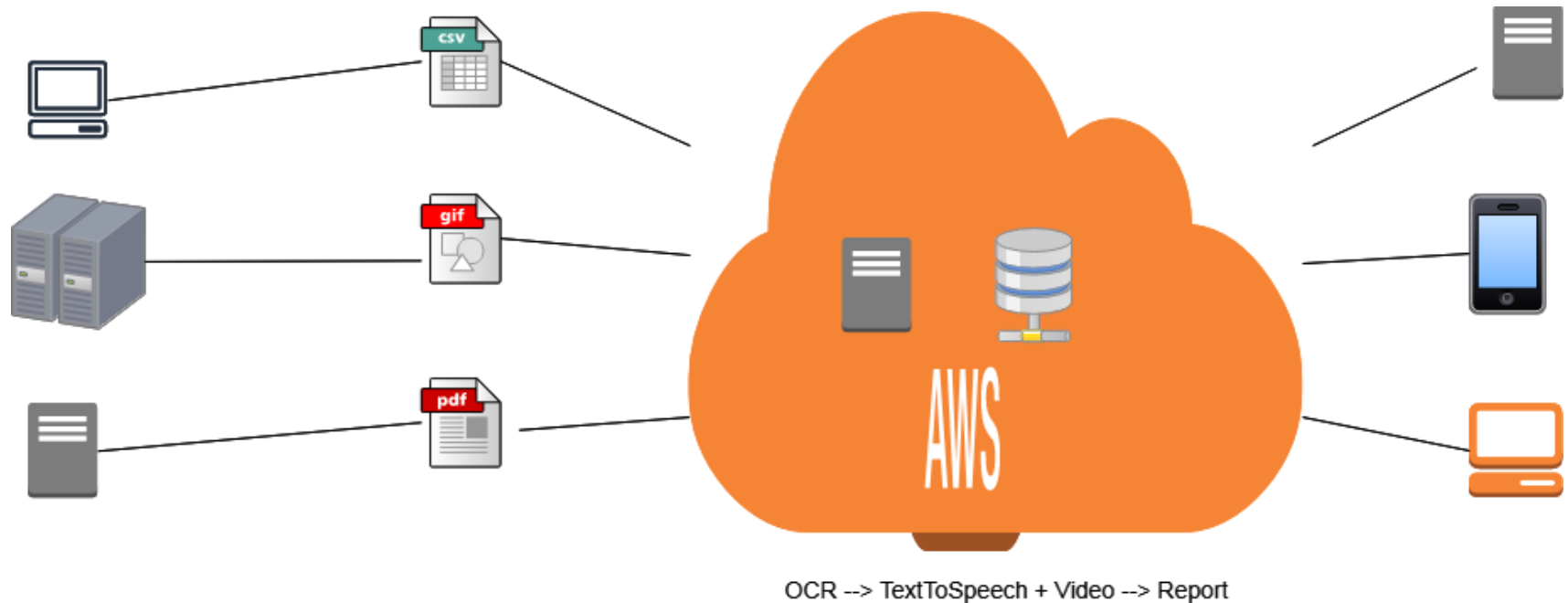
Gender : 1

Results Date : 03/10/2016 11:36:01AM

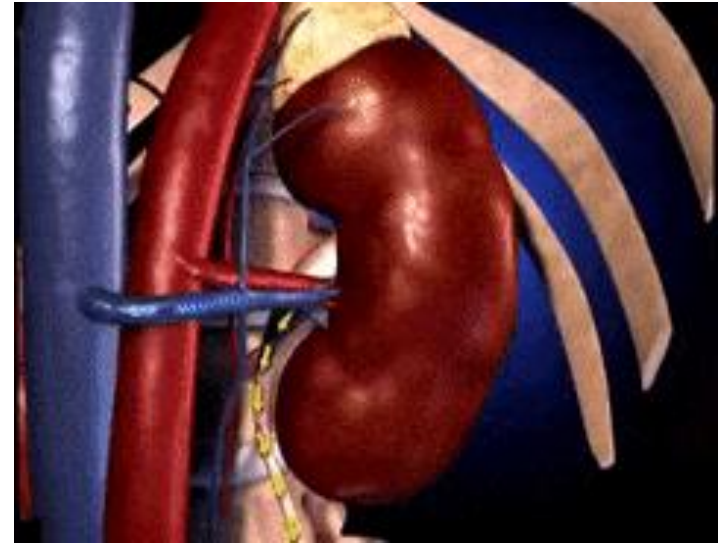
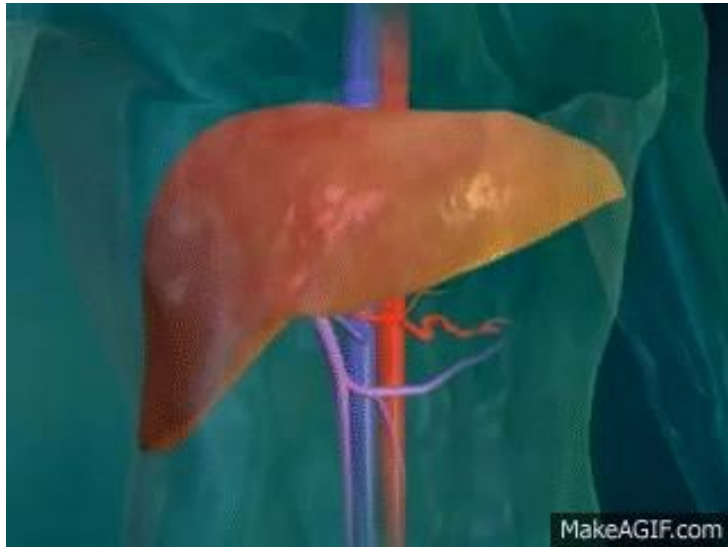
TESTNAME	VALUE	TEST UNITS	BIOLOGICAL REFERENCE RANGE
IRON PROFILE			
! Iron	43	µg/dL	59 - 158
Iron Binding Capacity - Total (TIBC) *	431	µg/dL	240-450
Transferrin	293.2	ug/dL	176 - 280
Transferrin %	10.0	%	20-50
KIDNEY BASIC SCREEN			
! Creatinine(Serum)	3.2	mg/dL	0.7 - 1.4
! Urea (Serum)	132	mg/dL	10 - 50
! Blood Urea Nitrogen (BUN)	26	mg/dL	7 - 18
Blood Urea Nitrogen (BUN)/Creatinine	8.1	Ratio	6 - 22
Sodium	137	mmol/L	135 - 145
Potassium	4.3	mmol/L	3.8 - 5.2
Chloride	101	mmol/L	94-108
Uric Acid*	4.2	mg/dL	3.5 - 7.2
LIPID PROFILE			
Cholesterol - Total	154	mg/dL	<200 : Desirable 200-239 : Borderline risk >240 : High risk
Cholesterol - HDL	42	mg/dL	< 40 : Low 40 - 60 : Optimal > 60 : Desirable
Cholesterol - LDL	92	mg/dL	< 100 : Normal 100 - 129 : Desirable 130 - 159 : Borderline-High 160 - 189 : High > 190 : Very High
Cholesterol VLDL	20	mg/dL	7-40
Triglycerides	102	mg/dL	< 150 :Normal 150-199 :Borderline-High 200-499 :High > 500 :Very High
Total cholesterol/HDL ratio	3.7		0 - 5.0



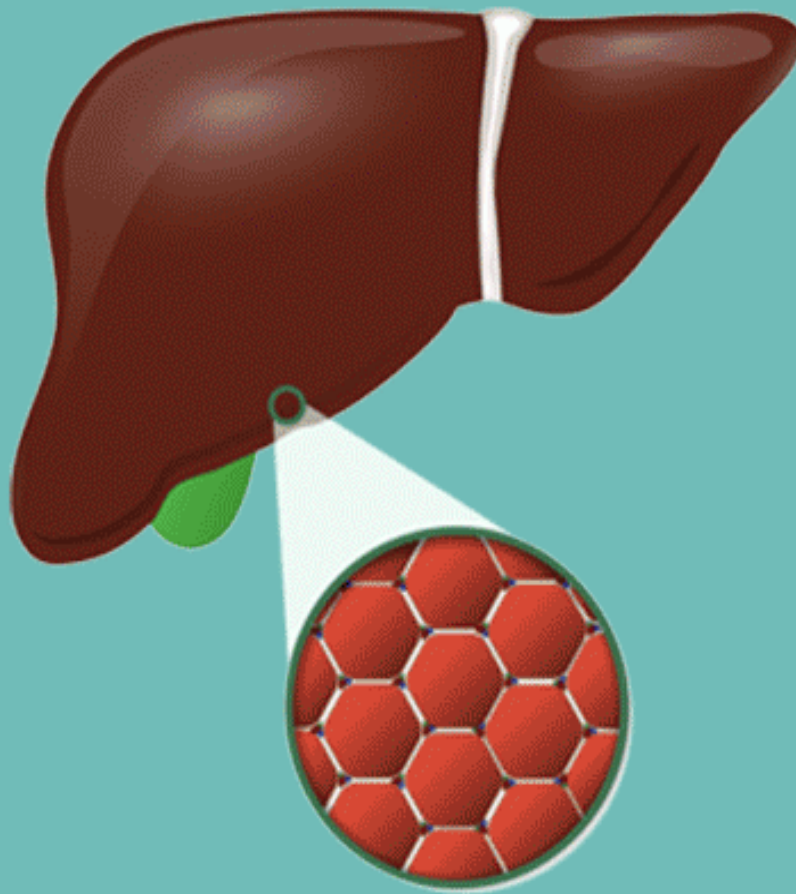
Any Report from any Mode analyzed through an AI to give the out put



<http://54.183.140.28/>



PROGRESSION OF NON-ALCOHOLIC **FATTY LIVER DISEASE**



**Healthy
Liver**

Are we secured and scalable?

- Global patent- secured
<https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2019116380&tab=PCTBIBLIO>
- Already in use by one of the largest B2B lab chains
- Test run showed when we used this to educate people the understanding of lab results
 - improved by 360% in illiterates
 - 245% in literates and
 - the willingness to seek medical attention is almost 138% more