

# Ain Shams Center for Organ Transplantation (ASCOT): Overview & Future perspectives

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# Liver Transplantation in Egypt

-  Only LDLT
-  First attempt was in 1991 in liver Institute , Menofia University
-  First successful LT program was in 2001 ( Wady el Nil and Dar el Fouad hospitals)
-  Currently 23 LTx centers across Egypt
-  Total number of cases 6000 case till now
-  The Egyptian Perlman approved the Cadaveric Transplantation in 2010 but the executive regulation is still lacking.

# Breakthrough of LDLT in Egypt

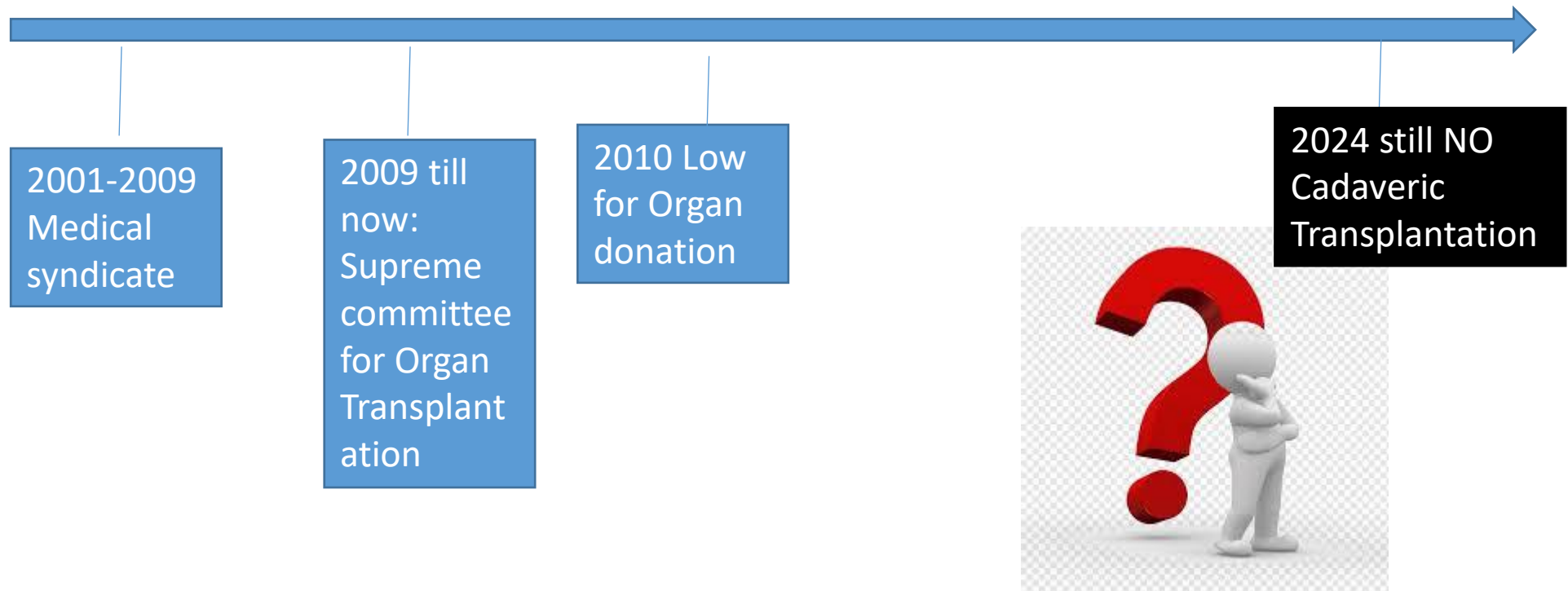


**Past President of Ain Shams University**

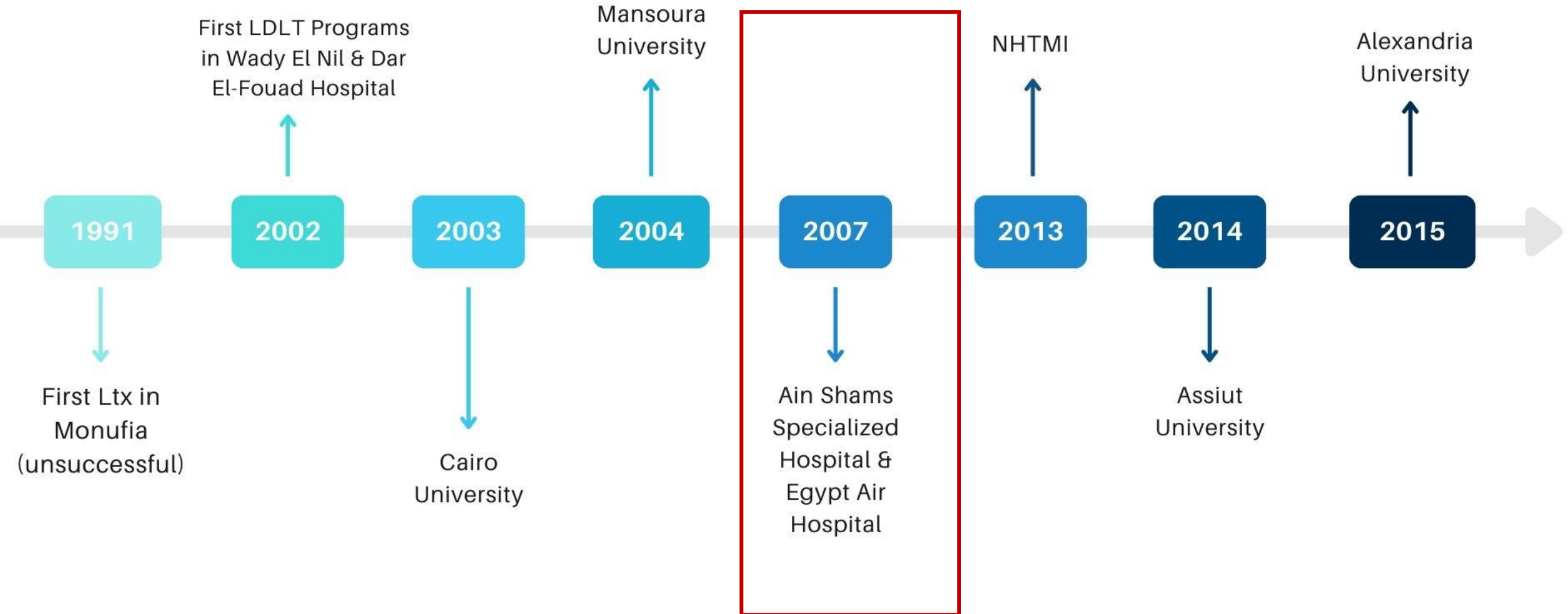
**Wadi Elnil Hospital 2001, Egypt Air Hospital 2007 & Ain Shams Hospitals 2008**

➤ Total number of liver transplant operations 7500 cases  
till November 2024 (MOH,2024)

# Timeline for Ethical and legal consideration



# THE JOURNEY OF LDLT IN EGYPT



# LTx centers in Egypt

**23** centers in **6** main governorates :

 Alexandria

 Cairo

 Giza

 Mansour

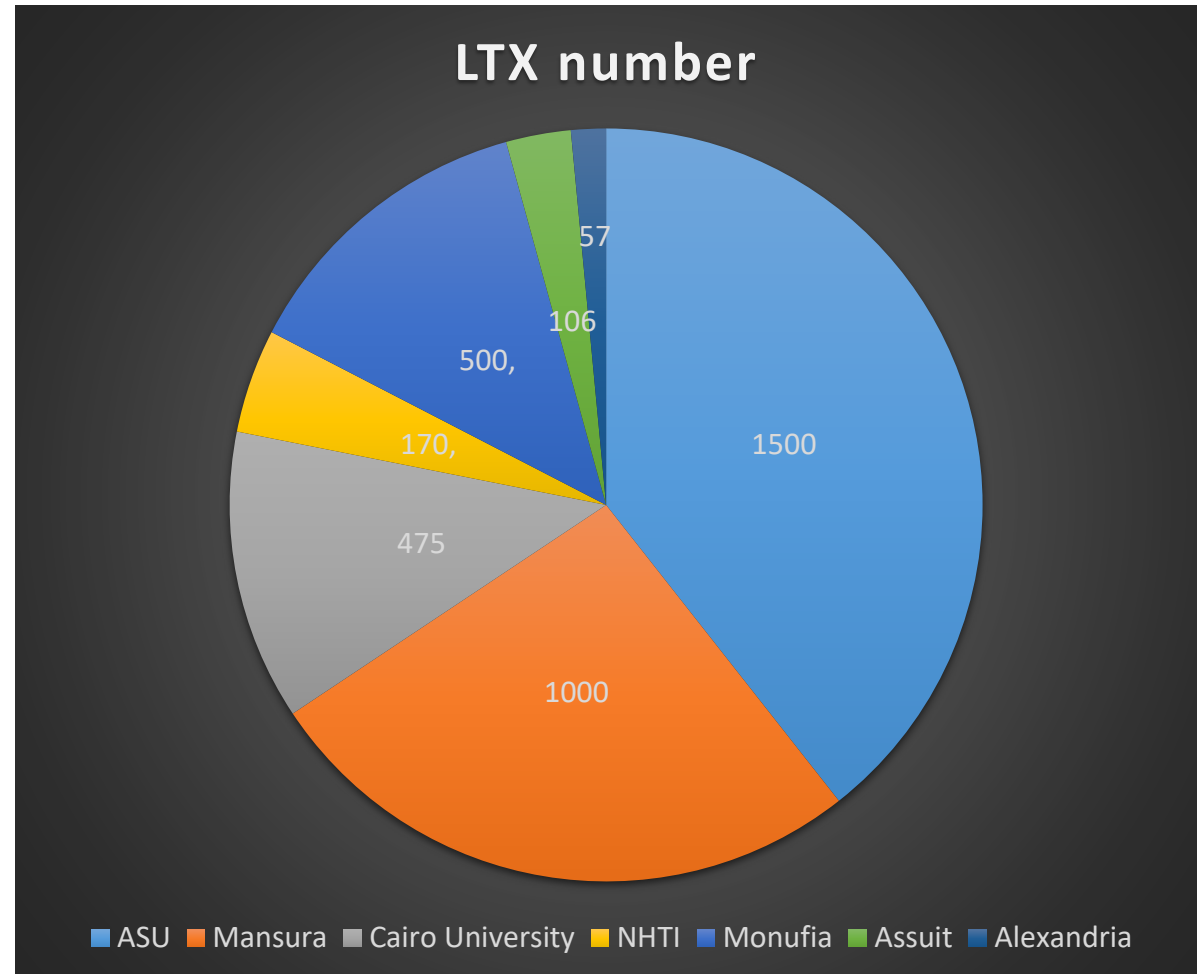
 Menufia

 Asyuit



# Main University and Governmental hospitals

ASU team	1500
Mansura	1000
Cairo University	475
Monufia hepatology Institute	500
NHTI	170
Asyuit University	106
Alexandria University	57





● [Life Expectancy](#)

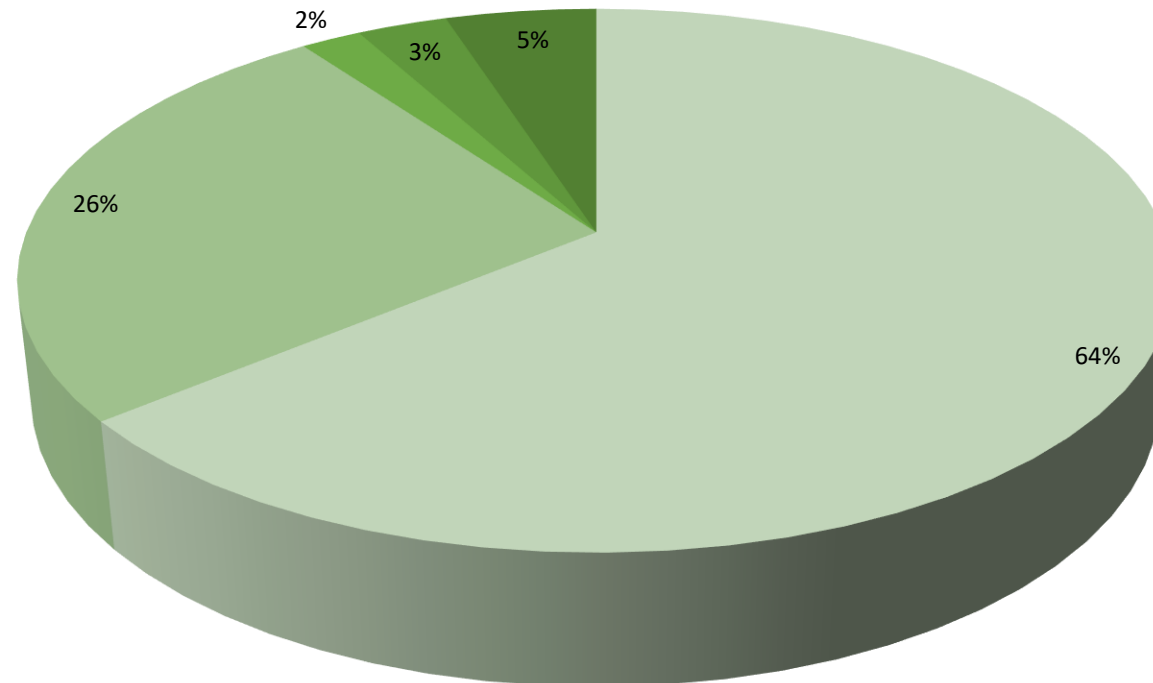
1. <a href="#">Coronary Heart Disease</a>	14. <a href="#">Asthma</a>	27. <a href="#">Suicide</a>	40. <a href="#">Hepatitis B</a>
2. <a href="#">Liver Disease</a>	15. <a href="#">Bladder Cancer</a>	28. <a href="#">Birth Trauma</a>	41. <a href="#">Uterin Cancer</a>
3. <a href="#">Stroke</a>	16. <a href="#">Lung Cancers</a>	29. <a href="#">Diarrhoeal diseases</a>	42. <a href="#">Oral Cancer</a>
4. <a href="#">Liver Cancer</a>	17. <a href="#">Congenital Anomalies</a>	30. <a href="#">Inflammatory/Heart</a>	43. <a href="#">Malnutrition</a>
5. <a href="#">Hypertension</a>	18. <a href="#">Prostate Cancer</a>	31. <a href="#">Endocrine Disorders</a>	44. <a href="#">Drownings</a>
6. <a href="#">Kidney Disease</a>	19. <a href="#">Low Birth Weight</a>	32. <a href="#">Falls</a>	45. <a href="#">Encephalitis</a>
7. <a href="#">Diabetes Mellitus</a>	20. <a href="#">Ovary Cancer</a>	33. <a href="#">Stomach Cancer</a>	46. <a href="#">Maternal Conditions</a>
8. <a href="#">Influenza and Pneumonia</a>	21. <a href="#">Leukemia</a>	34. <a href="#">Peptic Ulcer Disease</a>	47. <a href="#">Meningitis</a>
9. <a href="#">Breast Cancer</a>	22. <a href="#">Violence</a>	35. <a href="#">Fires</a>	48. <a href="#">War</a>
10. <a href="#">Lung Disease</a>	23. <a href="#">Colon-Rectum Cancers</a>	36. <a href="#">Cervical Cancer</a>	49. <a href="#">Pertussis</a>
11. <a href="#">Alzheimers &amp; Dementia</a>	24. <a href="#">Other Injuries</a>	37. <a href="#">Rheumatic Heart Disease</a>	50. <a href="#">Tuberculosis</a>
12. <a href="#">Road Traffic Accidents</a>	25. <a href="#">Parkinson's Disease</a>	38. <a href="#">Skin Cancers</a>	
13. <a href="#">Lymphomas</a>	26. <a href="#">Pancreas Cancer</a>	39. <a href="#">Oesophagus Cancer</a>	





# Liver Tx epidemiology

## Primary diseases leading to Liver Tx in Egypt



64% of cases are HCV  
26% of cases are HCC

■ HCV ■ HCC ■ HBV ■ Biliary atresia ■ Others\*

# HCV in Egypt

🇪🇬 Till 2015, Egypt had the highest prevalence of HCV in the world

🇪🇬 2014-2018: >4 million were evaluated

🇪🇬 2.4 million received treatment

🇪🇬 SVR > 95%

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DOI: 10.1111/jvh.12668

NON-COMMISSIONED REVIEW

WILEY



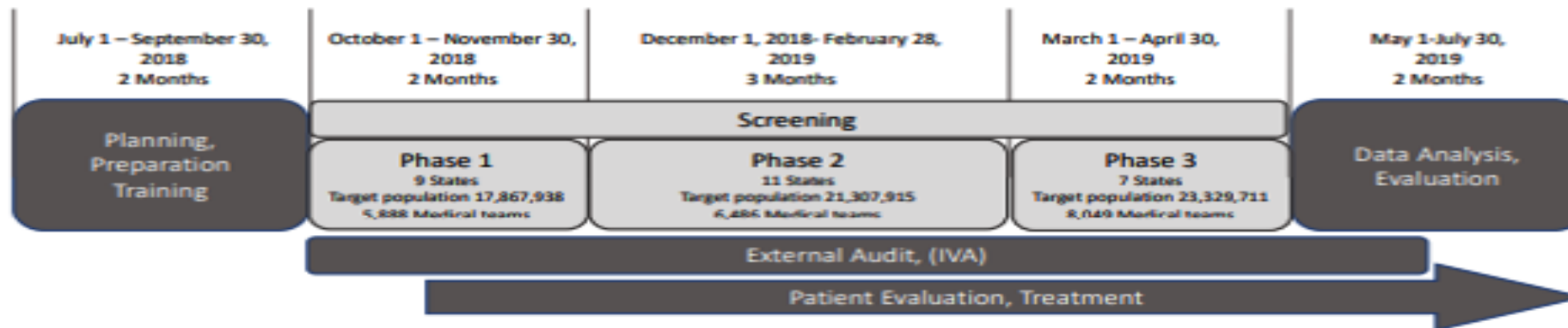
## National treatment programme of hepatitis C in Egypt: Hepatitis C virus model of care

W. El-Akel<sup>1</sup> | M. H. El-Sayed<sup>2</sup> | M. El Kassas<sup>3</sup> | M. El-Serafy<sup>1</sup> | M. Khairy<sup>1</sup> |  
K. Elsaed<sup>4</sup> | K. Kabil<sup>5</sup> | M. Hassany<sup>6</sup> | A. Shawky<sup>4</sup> | A. Yosry<sup>1</sup> | M. K. Shaker<sup>7</sup> |  
Y. ElShazly<sup>4</sup> | I. Waked<sup>8</sup> | G. Esmat<sup>1</sup> | W. Doss<sup>1</sup>

SPECIAL REPORT

## Screening and Treatment Program to Eliminate Hepatitis C in Egypt

Imam Waked, M.D., Gamal Esmat, M.D., Aisha Elsharkawy, M.D., Magdy El-Serafy, M.D., Wael Abdel-Razek, M.D., Reham Ghalab, M.Sc., Galal Elshishiney, M.Sc., Aysam Salah, B.Sc., Soad Abdel Megid, M.Sc., Khaled Kabil, M.Sc., Manal H. El-Sayed, M.D., Hany Dabbous, M.D.,



Timeline for the screening campaign

**Table 1. Participation in Screening and HCV Seroprevalence According to Sex.<sup>a</sup>**

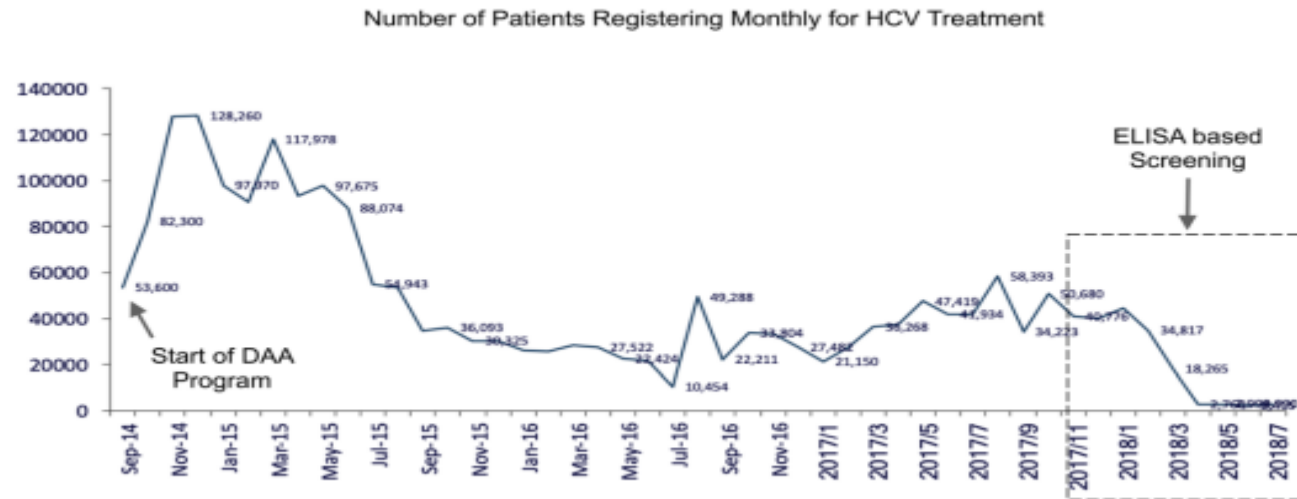
Variable	Men	Women	Total
Screening target population — no.†	32,207,165	30,298,399	62,505,564
Participated in screening — no. (%)‡	24,018,428 (74.57)	25,611,891 (84.53)	49,630,319 (79.40)
Previously treated for HCV infection with direct-acting antivirals since 2014 — no. (%)§	692,632 (2.88)	591,739 (2.31)	1,284,371 (2.59)
Screened for HCV antibodies — no. (%)	23,325,796 (97.12)	25,020,152 (97.69)	48,345,948 (97.41)
HCV seropositive			
No. of adults	1,252,443	976,885	2,229,328
Percent (95% CI)¶	5.37 (5.36–5.38)	3.90 (3.90–3.91)	4.61 (4.61–4.62)

**Total cost of screening & treatment** **US \$ 207,139,177**

**SVR 12** **98.8%**

**Identifying 1 viremic adult** **US \$70**

**Cost of cure** **US \$ 114**



**Number of patients registering monthly for DAA therapy on NCCVH website**



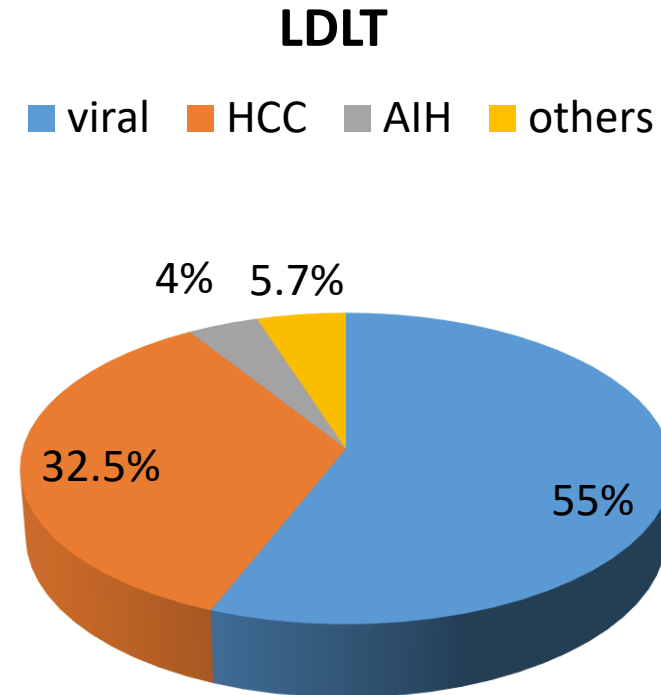
9 October 2023 | Departmental news | Reading time: 2 min (463 words)

The Arab Republic of Egypt has become the first country to achieve the "gold tier" status on the path to elimination of hepatitis C as per WHO criteria. This means that Egypt has fulfilled WHO's programmatic coverage targets that will set the country up to achieve the reduced incidence and mortality targets of full elimination before 2030.

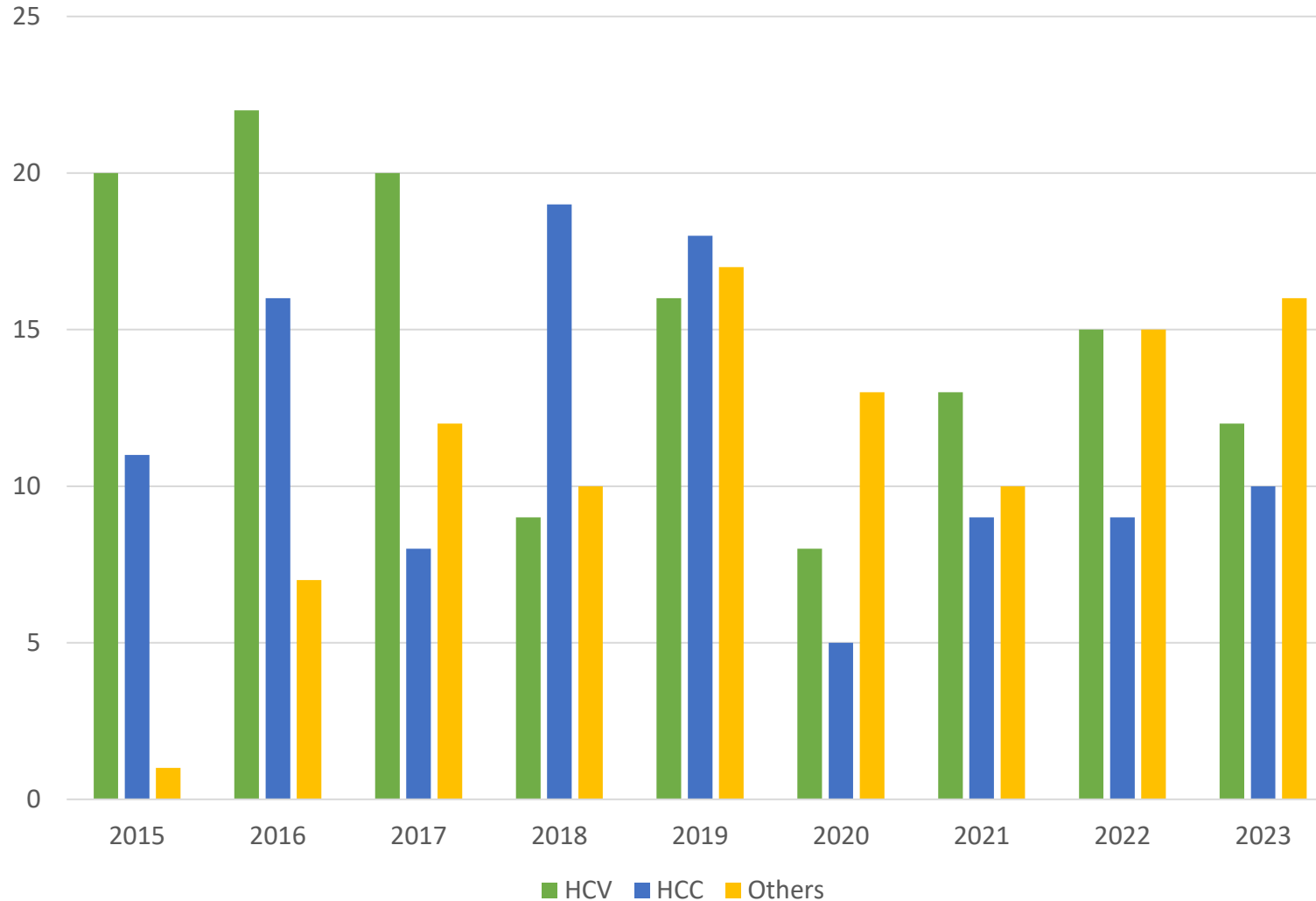
# Ain Shams Center for Organ Transplantation (ASCOT) Experience since 2008






- ❑ Viral related ESLD 55%
- ❑ HCC 35%
- ❑ AIH 4.3%
- ❑ Male 84.4% , Female 5.6%
- ❑ Mean age: 47.7 years
- ❑ Survival: Overall survival 92%



## Annual number of LTX cases: single center over the past 10 years



### Effect of HCV Treatment on LTx : Single Center Experience

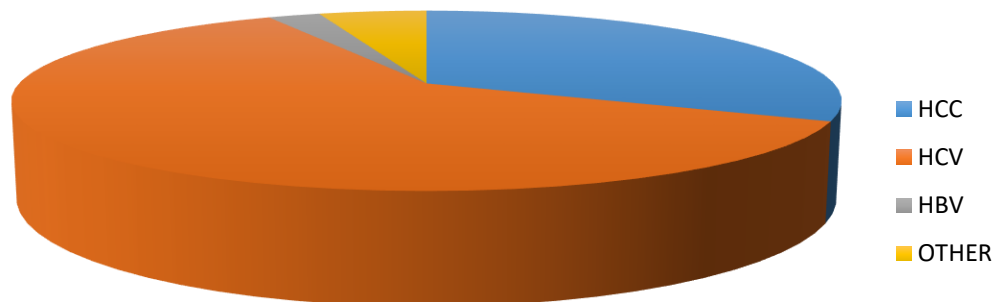
-  Decline in HCV cases in last 4 years
-  Rising trends of HCC on top of HCV cirrhosis
-  Rising trend of cryptogenic cirrhosis, autoimmune and NASH cirrhosis





	TOTAL	HCC	HCV	HBV	OTHER
ASCOT	545	192	271	12	70

### Classification According to Etiology

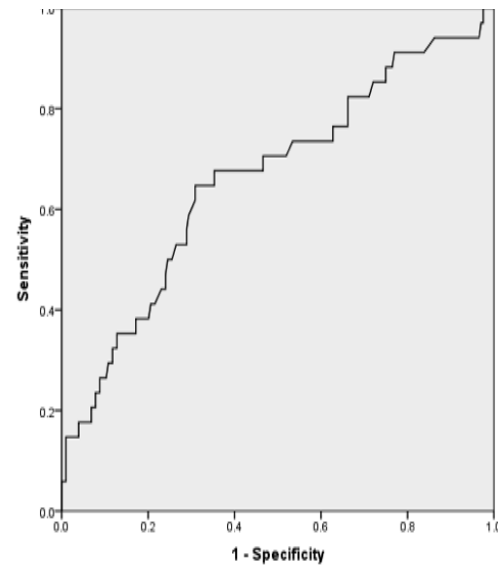


**HCC 35%**

- Other include :
- FHF
- AIH
- PSC
- PBC
- BCS
- Cryptogenic cirrhosis



# HCC-PRIDECTOR OF RECURRENCE



Area Under the Curve				
Area	Std. Error <sup>a</sup>	Asymptotic Sig. <sup>b</sup>	Asymptotic 95% Confidence Interval	
			Lower Bound	Upper Bound
.661	.054	.003	.556	.767

		Recurrence		Total
		No	Yes	
<b>Micro vascular invasion</b>	No	185 (91.1)	18 (8.9)	203
	Yes	20 (55.6)	16 (44.4)	36
		205	34	239
Chi-square		28.87	P	<0.001*
<b>Degree of Differentiation</b>	Ablated	37 (92.5)	3 (7.5)	40
	Grade I	22 (95.7)	1 (4.3)	23
	Grade II	146 (83.4)	29 (16.6)	175
	Grade III	0	1 (100.0)	1
		205	34	239
Fisher Exact		7.795	P	0.042*

❑ Micro-vascular invasion

❑ Grade of differentiation

❑ High AFP

# ASCOT protocol



**Customized immunosuppression protocol** is needed in post transplant care of HCC patients.

**Intraoperative:** recipient first, fresh frozen biopsy , No cell sever, No basiliximab

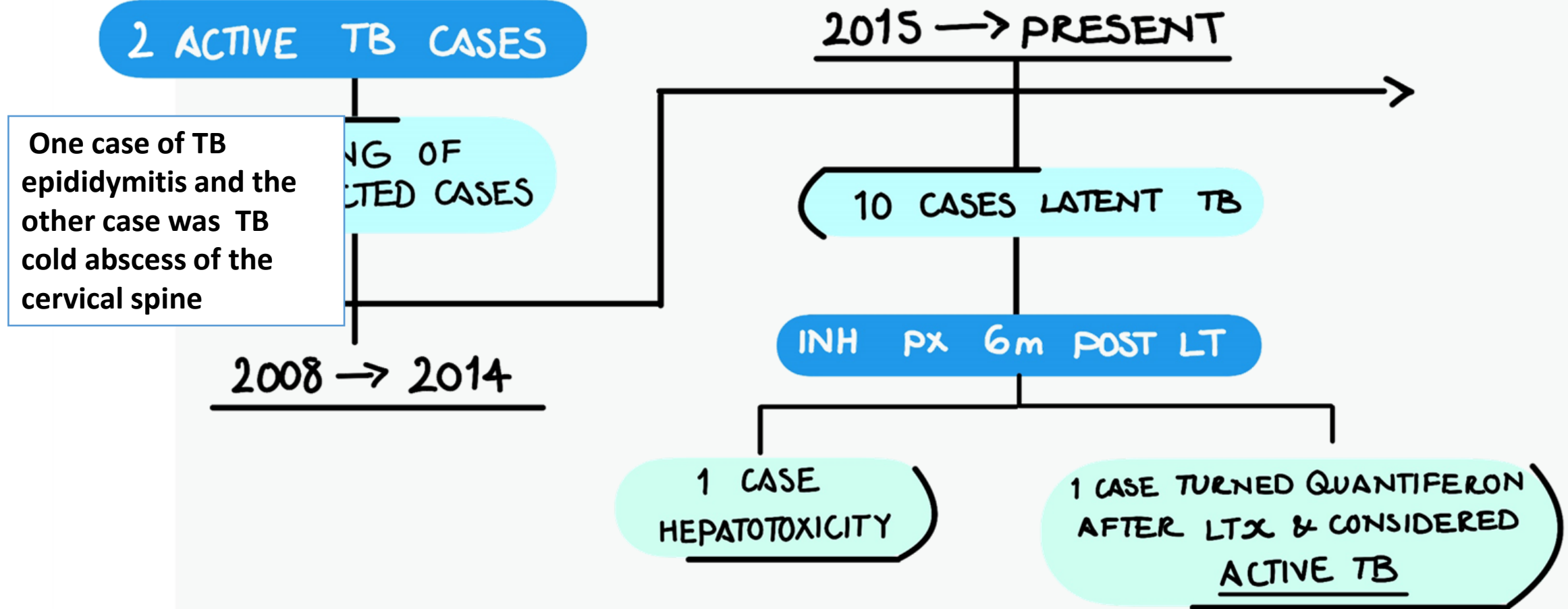
The trough levels(C0) in recipients transplanted for HCC is preferable **to be kept on lower level**

**Low dose Tac + m-TORS** is one of the strategies used to minimize HCC recurrence

**Protocol Follow up of patients post transplant is mandatory.**

# ASCOT Experience

TB



Un-Published Data

# Publications

- **Intensive care unit readmission in adult Egyptian patients undergoing living donor liver transplant: A single-centre retrospective cohort study.** Salah M, **Montasser IF**, El Gendy HA, Korraa AA, Elewa GM, Dabbous H, Mahfouz HR, Abdelrahman M, Goda MH, Bahaa El-Din MM, El-Meteini M, Labib HA. World J Hepatol. 2022 Jun 27;14(6):1150-1161.
- **Donor gender effect on graft function in adult Egyptian patients undergoing living donor liver transplantation: A single centre study. study.** Salah M, **Montasser IF**, El Gendy HA, Korraa AA, Elewa GM, Dabbous H, Mahfouz HR, Abdelrahman M, Goda MH, Bahaa El-Din MM, El-Meteini M, Labib HA. Egyptian Journal of Anaesthesia 2022-12-31
- **Genomic landscape of hepatocellular carcinoma in Egyptian patients by whole exome sequencing.** Kassem PH, Montasser IF, Mahmoud RM, Ghorab RA, AbdelHakam DA, Fathi MESA, Wahed MAA, Mohey K, Ibrahim M, Hadidi ME, Masssoud YM, Salah M, Abugable A, Bahaa M, Khamisy SE, Meteini ME. BMC Med Genomics. 2024 Aug 9;17(1):202.
- **Effect of Ramadan fasting on Muslim recipients after living donor liver transplantation: A single center study.** **Montasser IF**, Dabbous H, Sakr MM, Ebada H, Massoud YM, M Salaheldin M, Faheem H, Bahaa M, El Meteini M, Zakaria Zaky D. Arab J

# ACKNOWLEDGMENT



## Team of ICU

- Prof Alaa Kouraa
- Prof Gamal Elwa
- Dr Hanaa EL Gindy
- DR Heba Abd EL Azeem
- Dr Mohamed Sedky
- DR Waleed Abdalla
- DR Amr Helal
- Dr Hussam

## Team of Anesthesia

- Prof Gamal Fouad
- Prof Nabila Abd EL Aziz
- Dr Amr Helal
- Dr Dwaa Galal
- Dr Aya Hisham
- Dr Hadeer
- Dr Marwa

## **Surgery**

Mahmoud El- Meteini  
Mohamed Fathy  
Mohamed Bahaa  
Hany Sayed  
Kamal Mammoudh  
Ahmed Ibrahim  
Mostafa Omar  
Mohamed EL Hawaty  
Amr Zaher

## **Pharmacy**

Sarah Alla  
Dina Azz

## **Transplantation Hepatology**

Mohamed Amin Sakr  
Amal Tohamy  
Maha Mohsen  
Hany Dabbous  
Iman Montasser  
Hend El sayed  
Yasmine Massoud  
Manar Salah  
Heba Faheem

# ASCOT TEAM



Dr Iman Montasser

## **Radiology**

Ahmed El Dorry  
Samah Abd El Wah  
Mohamed Ghareel  
Mohamed Sobhy  
Ahmed Hussein  
Amr Salem

## **Pathology**

Magda El Monayeri  
Nedal Hegazy  
Nehal Radwan  
Mariam Ibrahim





2003-2023





LDLT is not just operation, it's a gift of life!







Zaafarana palace (1864);main  
campus of ASU

Thank You  
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