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Medanta Lucknow

601 beds | 300+ Doctors |
1000+ Nurses



Apollo Medics, Lucknow

330 beds | 200+ Doctors |
450+ Nurses



Lucknow Hospital Visits | Strong potential for healthcare services

- We visited the Lucknow facility of Medanta, Lucknow Health City hospital and Apollo Medics (AM) to understand healthcare dynamics of the city and nearby regions.
- Despite recording an 8% CAGR in **net state domestic product (NSDP) per capita** over FY12-22, Uttar Pradesh (UP) lacks high-quality healthcare infrastructure, leading to underserved healthcare demand. Currently, western UP has better healthcare infrastructure and connectivity to metro cities like Delhi and Noida, while significant healthcare demand is unfulfilled in central and eastern UP. However, public and private sectors are showing increased impetus to improve healthcare infrastructure in the state over the next 4-5 years.
- **Lucknow** boasts **notable government hospitals** like SGPGI (Sanjay Gandhi Postgraduate Institute of Medical Sciences) and KGMC (King George's Medical College).
- Given the limited availability of services, people from Lucknow and nearby areas travel to far places like Delhi (~550kms) for superior tertiary treatment in therapies such as cardiac, neurology and transplants. However, for the past few years, a few private hospitals in Lucknow, like MEDANTA and AM, have started providing high-end tertiary care.
- For people travelling to other metro cities like Delhi, the cost of treatment in Lucknow is almost similar to that in those metro cities, but they have to incur **additional costs** related to travel and accommodation, which are not covered under insurance.
- **MEDANTA Lucknow** has a good payor mix with nearly 80% cash-paying patients and ARPOB of ~INR55k. The facility broke even in its first full-year of operations, which highlights the significant traction for healthcare services in the city.
- **AM**, a 51% subsidiary of APHS, is also attracting patients for high-end treatments (use of technology like AI-enabled robotic knee replacement surgery). AM has occupancy of ~70% and ARPOB of INR52k-55k. AM is also looking for land to expand its bed capacity.
- The key **feedback** from this visit: 1) there is an ample scope to add at least 1k-2k beds in Lucknow to cater to rising demand for tertiary care treatment; and 2) other cities, like Varanasi, have potential to cater to eastern UP and some parts of Bihar.

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UP – Increased focus on healthcare infrastructure

UP has few tertiary care facilities which are inadequate to cater to rising healthcare demand. However, over the next 4-5 years, healthcare industry can grow at mid-teens rate.

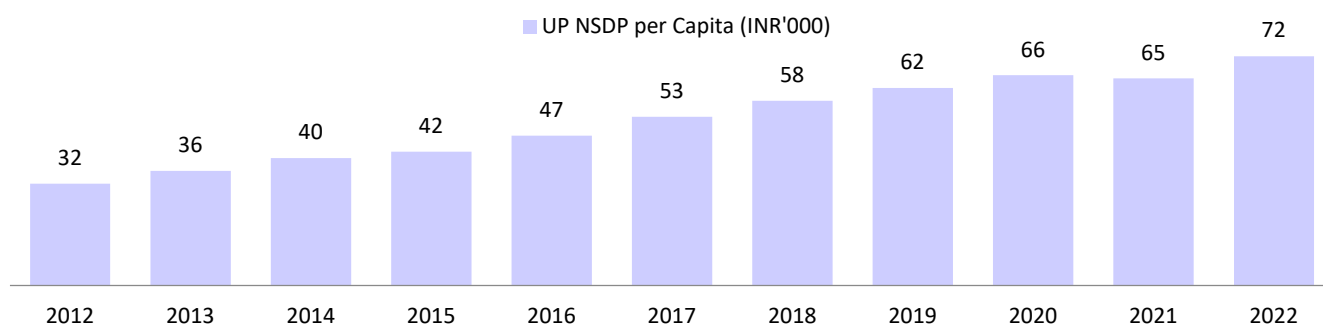
- UP, the most populous state of India, has few tertiary care facilities, which are not adequate to cater to rising healthcare demand.
- Western UP has better healthcare infrastructure compared to central and eastern UP. However, with increased focus of the public and private sectors to improve the state's healthcare infrastructure, large hospitals, like MEDANTA and AM, have been built in Lucknow to cater to central and eastern UP. According to medical experts we met, the healthcare services industry has immense potential to grow in UP at a mid-teens rate consistently over the next 4-5 years.
- Going forward, there is an ample opportunity for other cities like Varanasi to attract significant investments in the healthcare sector. This is likely to make UP a preferred choice for patients to get high-quality tertiary care treatment.

Strong opportunity to tap UP patients moving to neighboring states

Patients going to Delhi from central UP incur ancillary costs related to travel and accommodation, in addition to treatment costs.

- UP is the most populous state in India with a population of over 200m. Interestingly, the state has recorded an 8% CAGR in NSDP to reach INR72k over FY12-22.
- However, the state's healthcare infrastructure is inadequate to cater to tertiary treatment needs of people. Compared to central and eastern UP, western UP (Noida, Ghaziabad, etc.) has better healthcare facilities, with a presence of large hospital groups, such as FORH, MAXHEALT and Yashoda. Only a handful of large hospitals, like Medanta and Apollo, are present in central UP.
- The patient from western and central UP travel to other states, like Delhi, to avail tertiary treatment. In addition to treatment costs, they incur ancillary costs related to travelling, accommodation, etc. For example, a patient going to Delhi from Lucknow needs to travel 500+kms, while a patient from Varanasi needs to travel 800km+ for better medical treatment.

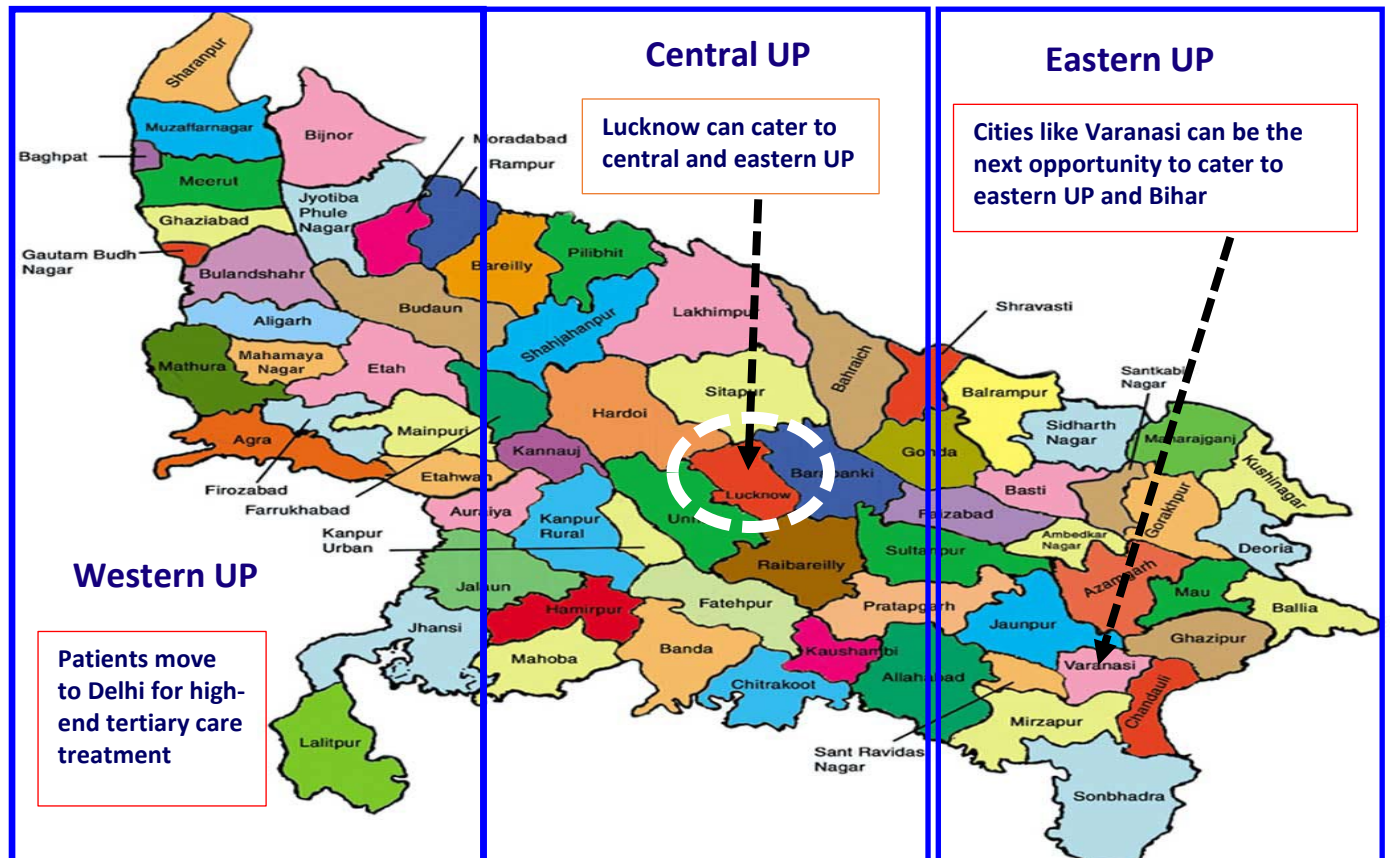
Exhibit 1: UP's NSDP per capita witnessed 8% CAGR over FY12-22



Source: CEIC

- Interestingly, only few national hospital chains have their facilities in UP. For instance, Kanpur has only one 400-500-bed hospital (Regency Hospital) and one more (Paras Hospital) is expected to come within a year. Moreover, major cities like Prayagraj and Gorakhpur do not have tertiary care hospitals.
- A majority of the hospitals have a capacity of 100-150 beds with limited investment for comprehensive tertiary care.

Exhibit 2: Cities like Varanasi and Gorakhpur can be the next destinations in UP for the hospital industry



Source: MOFSL, Company

Huge opportunity for private investments in central and eastern UP

- Given that significant amount of cost can be saved by building tertiary hospital in UP, the **state government aspires** to make the state a medical education hub and self-reliant. The Medical Education Department aims to provide high-quality medical facilities to the people of the state.
- Given this opportunity, private hospital groups, like Apollo and Medanta, are further expanding their bed capacity, which will bring private investment in medical infrastructure in terms of bed and other high-end equipment.
- Experts also indicated that corporates are looking for opportunities in other cities such as Varanasi and Gorakhpur to cater to eastern UP and some parts of Bihar.
- These developments would have multiple benefits: a) quality of treatment would significantly improve and the cost of treatment would decline, b) a strong business outlook would bring further investment in building large-format hospitals, and c) improved patient pool would drive better profitability for existing hospitals.

- Accordingly, we believe the healthcare services industry has immense potential to grow in UP at a mid-teens rate consistently over the next 4-5 years.



Lucknow– best placed to become a medical hub

- Lucknow city, being the political capital of UP, is an important location for the healthcare industry.
- Compared to metro cities like Delhi, the treatment cost is same in Lucknow; however, there is a considerable saving on expenses such as travel and accommodation.
- There are well-established government hospitals like SGPGI and KGMC in Lucknow with ample doctor talent available. However, doctors move to metro cities like Delhi and Mumbai due to the lack of quality infrastructure and medical equipment.
- With strong investment by corporates like Medanta/Apollo over the past 3-4 years, there is increased inclination in doctors to build career in Lucknow.
- Even the city's infrastructure is favorably placed to not only reduce time travel from home to hospital, but also provide good quality social life.
- Moreover, patients from nearby areas such as Kanpur would also prefer to get treatment in Lucknow as compared to Delhi/Mumbai previously. Interestingly, Lucknow also attracts around 5-8% of its patients from Nepal.
- Experts indicated there is a potential to add at least 1k-2k beds in 1-2 years in Lucknow to cater to rising demand.



Varanasi – another city for robust healthcare services investment

- Varanasi has a large potential to becoming a medical hub to cater to eastern UP and some regions of Bihar.
- Currently, Varanasi has hospitals like Heritage and Apex, which are super-specialty hospitals but have only ~200-bed capacity.
- Multiple corporates are exploring the opportunity to build 400-500-bed hospitals in this city. A high-end tertiary care hospital in Varanasi can cater to areas within a 150km radius such as Prayagraj and Azamgarh in UP and some parts of Bihar.

Doctor engagement model – key to retain good doctors

- A good doctor talent pool remains the key pillar for building a highly profitable hospital business model, in addition to advanced medical equipment, land bank to build ICU/ward beds and supporting paramedical forces.
- Given the limitation in availability of high-quality doctors, a doctor engagement model plays a critical role in attracting patients and reducing the gestation period for investment in building hospital infrastructure.

Reduced inclination toward CGHS patient pool due to prolonged payment process

- Interestingly, large format hospitals in Lucknow are not keen for empanelment with the Central government health scheme (CGHS) pool of patients.
- While the realization remains lower compared to cash/insurance patients, the payment is also significantly delayed, reducing the scope of profitability for treating this segment of patients.

- While there has been an increase in prices of certain aspects related to CGHS patients, it remains insufficient to attract hospitals to participate in CGHS tenders.
- Accordingly, the proportion of cash-paying patients remains the highest in Lucknow (~80% for Medanta/60% for AM).
- There has been a rising trend of patients utilizing insurance for better healthcare services in Lucknow as per experts.
- Over the last 3-4 years, the hospitals Industry has been witnessing ARPOB growth on the back of case mix optimization and inflation-linked price hikes.
- Additionally, cost optimization led by better supply chain and efficient administration has led to overall margin improvement for the past couple of years.



Medanta's Lucknow facility has an attractive payor mix, with ~80% cash-paying patients.

Medanta has a good presence in Gynae therapy and plans to increase units in existing teams in neurology/nephrology areas.

MEDANTA - dominant player in Lucknow region

- We met Dr. Sandeep Sawhney, Chief Strategy Officer, and Mr. Pranab Bal, CFO, Lucknow hospital, to understand the healthcare dynamics in Lucknow and Medanta's positioning in the market.
- The Lucknow region has a high demand-supply gap, with MEDANTA well-poised to benefit as compared to peers.
- Accordingly, Medanta has enough scope to expand its bed capacity to 950 from 601 beds currently.
- Further, Medanta has built capability to provide comprehensive treatment across most of the therapies, with Mother and child care, Neo-natal ICU, endocrine surgery, and bone marrow transplant (BMT) being the recent additions.
- The use of latest technology like e-ICU is likely to augment growth of MEDANTA brand and increase patient outreach.

MEDANTA in excellent spot in Lucknow region

- The Lucknow facility has 601 beds currently, including more than 200 ICU beds. It plans to add 300 beds over the next two years.
- This facility has gained significant patient traction and achieved breakeven in the first full-year of operations in FY21.
- In FY23, the Lucknow hospital had ~65% occupancy. The management indicated that occupancy continues to improve.
- The Payor mix of its Lucknow facility is ~80% cash and 20% Insurance.

Established presence for comprehensive programs across therapies

- Complete programs for most of the indications (cardiac, Neuro, transplants) are in place at Medanta.
- Medanta plans to increase units in existing teams in neurology/nephrology areas.
- Recently, it has also started Mother and child care, Neo-natal ICU, endocrine surgery, and bone marrow transplant (BMT) in Lucknow.

Robust doctor-engagement model

- Medanta's Lucknow facility has a robust doctor engagement model under which it hires industry-leading specialists as department HODs and gives them full independence to operate.
- Additionally, the hospital ICUs and wards are specifically designed to give excellent care and experience to patients.

Unique aspects at Lucknow facility

- Medanta's Lucknow facility has some unique features such as:

e-ICU to monitor patient on real-time basis

- Medanta has recently started a unique patient monitoring system with e-ICU, where a team of doctors at Medanta follow up on real-time basis with patients in hospitals in remote areas.
- Remote areas might have limited availability of knowledge and technology. A tie-up with Medanta bridges this gap and in case of emergency, a patient can be moved to any of the Medanta facilities.
- Medanta plans to expand this project to other districts in UP from five cities currently.

Exhibit 3: A dedicated room for e-ICU provides real-time control of the patient in remote location



Source: MOFSL, Company

Use of LINAC machine for Radiation Oncology

- The facility has an advanced technology, known as the MR-Linac, which merges a high-strength magnetic resonance imaging (MRI) machine and a linear accelerator into a single device.
- The MRI machine provides high-quality, real-time images of tumors as they are blasted with radiation beams from the linear accelerator.

Exhibit 4: Linac EDGE machine for Radiation oncology



Source: MOFSL, Company

Neonatal ICU (NICU) machine to treat pre-mature babies

- This facility has a state-of-the-art NICU machine catering to under-served neonatal critical care in Lucknow.

Exhibit 5: NICU facility to address critical care for pre-mature babies

Source: MOFSL, Company

Use of escalators to increase operational efficiency

- Medanta has installed escalators within the hospital, which reduces the load on elevators used to carry patients, thereby improving overall operational efficiency and enhancing overall patient service.

Exhibit 6: Use of escalators to increase operational efficiency

Source: MOFSL, Company



AM is a 330-bed super-specialty hospital with occupancy of ~70% and ARPOB of ~INR52-55k.

Apollo Medics (AM) – Another major player in Lucknow region

- We met Mayank Somani, CEO of Apollo Medics, Lucknow, to understand the healthcare dynamics in Lucknow and AM's positioning in the market.
- AM became a 51% subsidiary of APHS in 4QFY21. It has total 330 beds, including 80-100 ICU beds.
- This facility has occupancy of nearly 70%.
- To cater to rising demand, AM is looking for additional land in Lucknow to expand further.

AM strategically placed to meet growing need for healthcare

- APHS, along with Medics International Lifesciences Ltd, manages a 330-bed super-specialty hospital in Lucknow. APHS has invested INR950m for a 51% stake in AM. It has almost 80-100 ICU beds.
- AM has occupancy of almost 70% and ARPOB of ~INR52-55k.
- AM does not cater to CGHS patients currently due to lower realization and prolonged delays in payments.
- AM is at an advantageous position to cater to the rising healthcare demand of Lucknow and nearby areas due to its strategic location and availability of doctors across major indications for tertiary care treatment.
- To increase bed capacity, AM is looking for additional land in Lucknow.

Exhibit 7: AM's revenue grew 19% YoY in FY23...

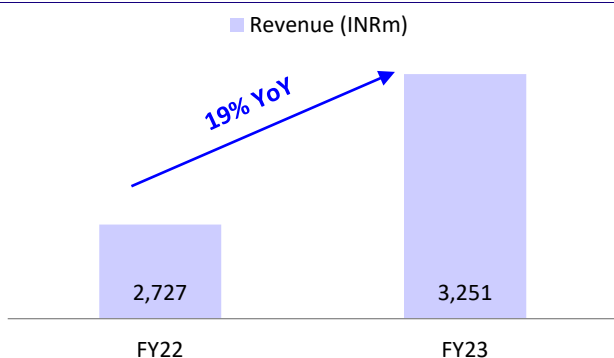
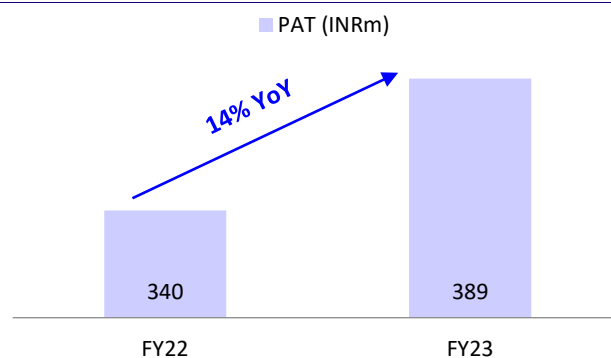


Exhibit 8: ...PAT grew 14% YoY



- In FY23, AM's revenue grew 19% YoY to INR3.3b and PAT grew 14% YoY to INR389m.

AI-guided robotic knee replacement surgery – First in the Lucknow region

- AM Lucknow has used Artificial Intelligence for a knee replacement surgery, which is the first in the Lucknow region.
- It gives personalized treatment plans to patients, with features like live simulation 3D model and precise implant insertion.
- This has resulted in providing safe surgery and faster recovery to patients.

Exhibit 9: Use of AI-guided robotic knee replacement surgery



Source: Company, MOFSL

Exhibit 10: Live simulation 3D model that helps specialist to effectively perform a surgery



Source: Company, MOFSL

Differentiated way to inform patients about doctors at AM

- AM has put boards across the facility depicting the credentials of medical specialists at the hospital.
- These boards include the name, specialization and availability of a doctor in the local language. This not only provides information about doctor but also helps patients to take prior appointments.

Exhibit 11: Informing patients about medical specialists at AM



Source: MOFSL, Company

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Registration details of group entities.: Motilal Oswal Financial Services Ltd. (MOFSL): INZ000158836 (BSE/NSE/MCX/NCDEX); CDSL and NSDL: IN-DP-16-2015; Research Analyst: INH000000412 . AMFI: ARN : 146822. IRDA Corporate Agent – CA0579. Motilal Oswal Financial Services Ltd. is a distributor of Mutual Funds, PMS, Fixed Deposit, Insurance, Bond, NCDs and IPO products.

Customer having any query/feedback/ clarification may write to query@motilaloswal.com. In case of grievances for any of the services rendered by Motilal Oswal Financial Services Limited (MOFSL) write to grievances@motilaloswal.com, for DP to dp grievances@motilaloswal.com.