

# Clinical Transformation of AWH: Journey to A COVID 19 Facility

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## Abstract

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) [1], has become a major health problem causing severe acute respiratory illness in humans. Since its first identification in Wuhan, China, in December 2019, it has spread rapidly worldwide, although the Chinese government implemented a number of severe restrictions on people's movement in an attempt to contain its local and international spread [2]. Beginning of year 2020 saw a sudden disruption in regular functioning of healthcare systems across the Globe; taken by storm due to the unprecedented severity and magnitude of COVID 19 Pandemic striking the world [3]. The Healthcare systems were overwhelmed across the world resulting in Morbidity & Mortality rates to plunge at highest especially during the early 2021. The catastrophic sequence of events since the beginning of the Pandemic served as a Catalyst for Healthcare organizations to adapt via Clinical Transformation [3]. This tremendous opportunity for improvement, adaptation and change was taken up by Al Wakra Hospital to bring widespread, fast and significant changes to its Healthcare delivery systems and processes beginning 5th April 2021 when Al Wakra Hospital (AWH) was converted to an adult COVID 19 Facility.

Primary Objective of this research paper is to spotlight the Journey of AWH to a COVID Facility. To describe the rigorous Risk assessment involved in this process and the remarkable resilience of the hospital and staff to help attain this goal in a very tight scheduled time. This Paper describes in detail the transformation of AWH to a COVID 19 Facility for Adult COVID 19 positive patients requiring Critical and Acute Care Beds. The purpose was to share care burden of other COVID 19 Facilities across Hamad Medical Corporation in midst of the bed crisis.

**Keywords:** Aging; Adult age; Growth rate

## Methods and Tools

This study will be conducted in Al Wakra hospital (AWH), location a 325-bed capacity secondary general hospital and a part of Hamad Medical Corporation (HMC). AWH serves the community

of Al Wakra and neighboring cities with approximately more than 20,000 annual inpatient admissions. It is a descriptive retrospective study, describing the journey of Al Wakra Hospital from a non-

covid-19 hospital to a covid-19 Facility. We are including all Al Wakra Hospital COVID-19 patients, expected duration of study is from April 1st to May 25th, 2021. Electronic Medical Record (EMR) of all patients seen in AWH in the specified time duration mentioned above will be reviewed by the Medical Records Department in Al Wakra Hospital.

## Discussion

The COVID-19 pandemic has caused unprecedented strains on global healthcare delivery systems in modern medical history [4]. The study was conducted using the medical records of patients who visited AWH between April 1st to May 25th, 2021. Describing here Al Wakra Hospital is a general hospital which has been designed and staffed to meet acute hospital health care needs of people living in the south of Qatar. The hospital is part of Hamad Medical Corporation (HMC), which is the leading healthcare organization in the state of Qatar. AWH provides high quality health care to patients of all ages in the outpatient departments, emergency care, physiotherapy, obstetrics and gynecology, general medicine, surgery, cardiology and other medical specialties. AWH occupies 130,000 square meters of the area surrounding the main building that spread across 304,000 square meters of land in total. The capacity of AWH is 350 beds, 250 of which are serving the acute and general patients and 80 beds are for critical care patients. There are 3000 employees working in the hospital, including about 250 physicians with different specialties and about 1500 registered nurses. AWH admits around 100 patients and performs around 25 routine surgeries daily.

The Risk Assessment process and clinical transformation encompassed the areas, domains inclusive of but not limited to

Clinical pathways Creation and implementation, EMS Drop off & Pick up for ambulance, sponsors, visitors, Wayfinding creation, installation (outside signages, red lines, posters, allocation of elevators, maps installation), Education Virtual, point-of-care, face-to-face, Validation of PCR testing, Personal protective Equipment PPE, Hand Hygiene, Induction for Physicians, COVID19 staff, Installation of Antigen testing, Sharps box, wall mounted hand rubs, ACRYLIC screens, Staff Exposure risk assessment Interviews, Staff Testing scheduling, review, Ensuring PPE availability PPE burn rate review and daily follow up, COVID19 Vaccination, Leading Oxygen project and commissioning of units, On call Infection Prevention & Control Infection Prevention & Control (IPC) attending real-time calls inside the hospital, Hydrogen peroxide vapor disinfection, Healthcare Associated Infections Surveillances & IPC KPIs. Clinical Pathways were well thought out to ensure prevention of any cross contamination between patients. Such a multifactorial approach calls for new theories and frameworks for transforming the current healthcare system and can only be enabled by innovative policies and accountable leadership [5].

## Conclusion

A well formulated infrastructure, prompt reallocation of resources, staff dedication, teamwork, proactive risk assessment and continuous collaborative efforts paved the road to successful Clinical transformation of AWH to a COVID 19 Hospital in matter of days (Table 1). This study is intended to help other Healthcare facilities across the globe to serve as a guide and motivation; that successful change can be achieved in matter of days if the organization adapts redesign strategies that are effective, efficient, and befitting the need of time.

**Table 1:** AL Wakra hospital capacity under normal circumstances and as a COVID-19 facility.

Existing Services	AWH Normal Bed Capacity	COVID-19 Services	Numbers Of Committed Beds During COVID-19
Medical Words	52	Acute care unit	195
Surgical Words	67	Intensive Care Units	88
Obstetrics and Gynecology Wards	78	Obstetrics and Gynecology inpatients	60
Pediatric Ward	26	Neonatal Intensive Care Unit	16
Mental Health Service	13		
High -Dependency Unit	26		
Cardiac Care Unit	11		
Intensive Care Units (ICU)	50		
Day Care Units	42 (observational)		
Ambulatory unit	14 (observational)		
Emergency Department	120 (observational)		
National Burns Service	23		
<ul style="list-style-type: none"> <li>Burns, dialysis and dental continued uninterrupted.</li> <li>All acute care beds were reserved for COVID-19 patients only.</li> </ul>			

### Conflict of interest

None.

### Acknowledgement

None.

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