ASSINGMENT REPORT
ON
KEY PERFORMANCE INDICATORS (KPI)

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Question: *What do you understand by KPI (Key performance indicators). Elaborate one of them and discuss how it affects the quality.*

Key performance indicators (KPIs):

KPIs measure how successful a company, team, or individual is in accomplishing a goal or objective. It helps to understand whether the business is on track or not by measuring performance. While departments may have their own KPIs, most of the companies have their single KPI that guides the business as a whole. We can say few examples from the current top most companies as like Facebook they measure their KPI's by getting their monthly active users, Airbnb or booking.com measures with number monthly booking, Whatsapps or Snapchat measures with the frequency of messaging.

For the health care or hospital perspective, KPI focus on the management of a whole data spectrum on how to provide the best possible care, ensure sustainable hospital performance and effectively manage costs.

The standard of somethings as measured against other things is called quality on the other hand performance meets and exceeds the demands and expectations and it is a result of good intentions.

For any hospitals we can define the below basic indicators:

A. Finance:
    F1: Ratio of total revenue to total costs
    F2: % of deduction of hospital
    F3: Average expenditure per bed per day
    F4: The cost of drugs and materials
    F5: % of total costs of total costs
B. Internal Process:
    P1: Average length of stay
    P2: Bed occupancy
    P3: Bed turnover
    P4: Mortality rate
    P5: Cancelled operation
    P6: Discharge with personal satisfaction
    P7: Hospital infection rate
    P8: Clinical errors
    P9: Max length of stay in emergency department
    P10: Emergency room waiting rate
C. Learning and growth
    G1: Staff satisfaction rate
    G2: Staff turn over
    G3: Training expenditure per capita
    G4: Employee observation rate
D. Customer
    C1: The facilities for family and visitors
    C2: Patient satisfaction percentage
    C3: Rate of patient complaints

From my understanding of the basics of KPIs for hospital, I would like to discuss a very specific area on the Laboratory section aligned with the quality control, automation and performance.

In Bangladesh, most of the public and private microbiology laboratories are not fully qualified or to maintain standard procedure according to my 45 labs visit in the whole country in last three months' with a primary survey and assessment. Laboratories are data factories and therefore provide high value for the organization. Data generation and proper recording is also expensive no doubt; therefore, it is very important to keep laboratories well-performing. Good business practice is to keep track of the laboratory performance by measuring KPIs. As I understand the following should be the key performance indicators for a laboratory:

- The things are directly important for the business which is the business-related KPIs
- An important are to keep the lab in good condition that means lab condition KPIs
- The deliverables affect the downstream processes in the organization that means KPIs about data and deliverables
- Quality control in terms of internal quality control and external quality assurance.

And also to set the KPIs for laboratories depends on the type of lab whether it is commercial, research or academic. In our country context most of the labs are service oriented so that we can discuss about the business related KPIs and related things.

The business-related KPIs always correlate the activities through time and money that means to track revenue, expenses, and profits as:

- To set the target that how much revenue will generate on a month, quarter or a year.
- To spend money on consumables, staff, overheads and machines.
- Sample costing and analyses
- To set proper timing to get sample, do test, and notify to the customer.
- To improve quality and performace in every aspects in the lab.

To measure in terms of precesses, inventory and environment that ensure good condition and quality of a lab. We can say the quality control, time the staff spends on the bench, uptime of devices or machines, total allocated space or storage, status of the pipeline items and equipments with monthly consumables use, and wasted consumables. On the other side, the environment KPIs are also important for any kinds of labs. It always measures the humidity, pressure, amount of light, and even whether a window is open or closed.

The most important KPI for a lab is to generate and keep good quality data. In the current time, it not more expensive at all to keep the daily sampling records like the zone of inhibitions or sensitivity results with patient personal and demographic information or the integration of LIS. To monitor by performance of a lab only the quality data can help to set next indicators and achieve the set of target indicators.

For generating data, an integrated hospital management information system can play an important role with the laboratory module. It will improve all kinds of performance from receiving sample to provide patient results as well as to monitor finance. The Managers or Directors of lab can set and control these areas by developing a monitor dashboard for all activities like Blood, Stool, Urine and all kinds of testing, antibiogram, staffing, error mitigating, patient reports, team management, external quality assurance, internal quality control, SOPs follow-ups, finance etc.

Conclusion:

If the management of a health facility or hospital can set these mentioned indicators for a lab and try to achieve the targets I think it is quite possible in terms of service and profits. KPIs are also a very important part of the digital strategy. Laboratory digitalization addresses many challenges that are present in the laboratories.