

Review Article

An extensive review of patient health-care service satisfaction in Bangladesh

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ABSTRACT

Patient satisfaction is a useful measure for providing quality indicators in health-care services. Concern over the quality of health-care services in Bangladesh has resulted in a loss of faith in health-care providers, low use of public health facilities, and increased outflows of patients from Bangladesh to hospitals abroad. The main barriers to accessing health services are inadequate services and poor quality of existing facilities, shortage of medicine supplies, busyness of doctors due to high patient load, long travel distance to facilities, and long waiting times once facilities were reached, very short consultation time, lack of empathy of the health professionals, their generally callous and casual attitude, aggressive pursuit of monetary gains, poor levels of competence and occasionally, disregard for the suffering that patients endure without being able to voice their concerns. All of these service failures are frequently reported in the print media. Such failures can play a powerful role in shaping patients' negative attitudes and dissatisfaction with health-care service providers and health-care itself.

Keywords: Consultation length; Patient waiting time; Rural health facilities; Unethical drug promotion; Quality of future doctors

INTRODUCTION

Bangladesh, a South Asian low-middle-income economy, has experienced a demographic and epidemiological transition with rapid urbanization and a gradual increase in life expectancy.^[1-7] It is the seventh most populous country in the world, and population of the country is expected to be nearly double by 2050.^[8] The increasing burden of non-communicable diseases (NCDs) in Bangladesh can be attributable to rapid urbanization and nearly 50% of all slum dwellers of the country live in Dhaka division.^[9,10] According to the World Bank's Country Environmental Analysis 2018 report, air pollution lead to deaths of 46,000 people in yearly in Bangladesh.^[11] Less than 10% hospitals of this country follow the Medical Waste Management Policies.^[12] In 2017, twenty six incidents of disease outbreak were investigated by the Institute of Epidemiology, Disease Control and Research (IEDCR).^[13] Out-of-pocket (OOP) treatment cost has risen nearly 70% in the last decade.^[14] About two-third of the total health expenditure is from OOP, and of this, 65% is spent at the private drug retail shops.^[15] There is little assessment of the quality of provider care, low levels of professional knowledge, and poor application of skills. Bangladesh does not have a formal body for arbitration of complaints against health care providers. Hospital or clinic authorities address complaints and disputes independently, without involving the government or legal entities.^[16] "Oversight of physicians" and "inappropriate treatment" have become commonly-used phrases in print and electronic media of Bangladesh, while violence

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against the physician in Bangladesh (by patients or by their associates) has increased, and the severity has also intensified simultaneously.^[17]

METHODOLOGY

Research was conducted year-round with comprehensive literature search, which included technical newsletters, newspapers journals, and many other sources. The present study was started at the beginning of 2019. PubMed, ALTAVISTA, Embase, Scopus, Web of Science, and the Cochrane Central Register were thoroughly searched. The keywords were used to search for different publishers' journals such as Elsevier, Springer, Willey Online Library, and Wolters Kluwer which were extensively followed. Medicine and technical experts, pharmaceutical company representatives, hospital nurses, and journalists gave their valuable suggestions. Projections were based on patient experiences, expectations, and reasons of dissatisfactions among Bangladeshi population with the present health-care facilities.

PRESENT HEALTH-CARE SITUATION

Harvard Professor Sue Goldie credited Bangladesh for reducing under-five child mortality by 80%, the highest in South Asia and being on target to reach the 2015-MDG5 goal of reducing maternal mortality ratio of 1990 by three-quarters.^[18] The current doctor-patient ratio in Bangladesh is only 5.26 per 10,000 population, that places the country at the second position from the bottom, among the South Asian countries, according to the WHO.^[19] According to Bangladesh Medical and Dental Council, between 2006 and 2018, there were 25,739 registered male doctors (47%) and 28,425 female doctors (53%) in the country.^[20] Average consultation length is used as an outcome indicator in the primary health care monitoring tool, which was found to be, a less than a minute to an outdoor patient.^[5] An average 1.5 h is to spend to see a doctor in Dhaka Medical College and other public hospital outdoors, sometimes there are no doctors due to post-vacancy.^[21-23] Patients' struggle for essential services during any disease outbreak in hospital indoor and outdoor is common [Figure 1]. Overall, 67% of the health-care cost is being paid by people, whereas the global standard is below 32%. Only one hospital bed is allocated per 1667 people, and 34% of total posts in health sector are vacant due to scarcity of funds.^[24] In a low socio-economic country like Bangladesh, nurses struggle in a grossly underfunded health-care system to deliver care to the people. Heavy workloads; lack of government accommodation and transportation; poor health status; lack of support from nursing supervisors; lack of promotion opportunities; incomplete hospital policies and procedures; and lack of night shift and risk allowances reported by Akter *et al.*, 2019.^[25] Bangladesh Health

Facility Survey, 2017, reveals that more than 70% of rural health facilities do not have all six basic equipment items (thermometers, stethoscopes, blood pressure gauge, weighing scales for infants and adults, and torchlights).^[26] Only around half of physicians employed in public hospitals at the district to union sub-center level are satisfied with the availability of medicines in their facilities, suggesting widespread lack of medicines stocks in public facilities.^[27] In 2013/2014, the Infant Mortality Rate, which in urban areas overall is 34/1000 live births and 40 in rural areas, rises to almost 70 in urban slum areas.^[28] Sir William Osler said "One of the first duties of the physician is to educate the masses not to take medicine." Bangladesh has an estimated 100,000 licensed retail drug shops and a further 100,000 unlicensed drug shops.^[29,30] They are largely unregulated and unaccountable, and run by salespersons who are mostly trained informally through a process of "apprenticeship,"^[29] where the majority of medicines were dispensed irrationally without any prescription and OTC dispensing of many low safety profile drugs is common.^[31] More than 80% of the population seeks care from untrained or poorly trained village doctors and drug shop retailers.^[30] The post-disaster management in Bangladesh is inadequate due to lack of proper compensation, inadequate, or inaccessible health-care facilities, and the slow rehabilitation process to accommodate the survivors of disasters within the mainstream society.^[32] The recent Dengue outbreak caused more than 50,000 hospitalizations in August 2019 alone [Figure 2]^[33] and around 100,000 hospitalizations and claimed 112 deaths from January to October 2019,^[34] where hospitals were not able to handle the huge number of patients flooding the hospitals.^[35] The country is hosting 1.1 million Rohingya refugees,^[36] who are posing a serious threat of diphtheria,^[37-39] HIV, and other STDs transmission.^[40,41]

SYSTEM COLLISION WITH TRADITIONAL MEDICINE

There are around 86,000 villages in the country and almost every village has one or two traditional practitioners.^[42] Over 65% of the population of Bangladesh obtain first-line health-care services primarily from village doctors.^[43] An estimated 70–75% people of the country use traditional medicine for their healthcare.^[44,45] Furthermore, 70% of the women used at least one herbal product during their last pregnancy, mostly without the consultation of a qualified health-care practitioner.^[30] Again, alternative/traditional medicine is not included in the medical school curriculum except in Ayurvedic Medical College of Bangladesh. Illiteracy, poor economic status, cultural context, unpredictable diagnosis and treatment cost, absenteeism of doctors in rural health complexes, divergent medical opinions, unhealthy competition between health providers and their tendency to linger treatment procedure, negative perception of



Figure 1: Administrative map of Bangladesh (Source: World Atlas).

costly medical tests and unnecessary food supplements as well as easy availability and accessibility of alternative medicine diverted the patients to seek help from orthodox to alternative medicine.^[46-52]

DRUG COST VERSUS OOP EXPENDITURES

Due to high competition in the pharmaceutical industry, different medicine companies have adopted aggressive marketing strategies. The doctors, willingly or unwillingly, become part of the system with few exceptions. This unethical promotion drives them toward prescribing high valued or unnecessary medicines.^[53-59] Very often, medical

representatives rush at peak hours and aggressively pulls patient prescriptions in the name of the survey. Prescribing antibiotics in 44% consultations, prescribing of three or more drugs in 46% in urban centers and 33% in local health centers^[29] by doctors clearly raise OOP expenditure and create strong repulsion toward modern medicine where nearly 22% of the population is below the poverty line.^[60,61] Moreover, doctors are more often accused of taking, 30–50% commission on a test from hospitals/diagnostic centers.^[51,62,63] Neither the regulatory authority nor the professional or consumer rights bodies has any role to control or rectify the process.^[53] “Global Monitoring Report on Financial Protection in Health 2019” (joint report of World Bank and

WHO) estimates that around 7% households are pushed into poverty due to OOP outlays wherein chronic NCDs are the principle contributor.^[64,65] Khan *et al.*, 2017, further revealed that households spend 11% of their total budget on health care wherein 9% households faced financial catastrophe, wherein 16.5% of poorest and 9.2% of the richest households faces catastrophic health expenditure.^[65] Studies reported that detrimental coping strategies and lack of health-care expenditure protection for healthcare often negatively affect future income and can magnify people's vulnerability and hardship.^[66]

DOWNGRADING IMAGE OF SUPPLIED MEDICINES

Fake drugs kill more than 250,000 children a year worldwide.^[67] Ensuring quality health service is impossible without the availability of medicines as it is one of the basic requirements of people, said former Directorate General of Drug Administration (DGDA) of Bangladesh.^[68] Counterfeit medicines may lead to avoidable morbidity, mortality, drug resistance, early death or treatment failure, as well as loss of faith in health systems, especially in low-income and middle-income countries.^[69] Rural people, who are believed to be unaware of the situation, are generally the victims of the adulterated medicines. "People are taking poison without knowing it," according to the Dean, Faculty of Pharmacy at the University of Dhaka, who noted sales of counterfeit or sub-standard medication are most common in rural areas due to the lower levels of health awareness and formal education there.^[70] According to a survey by Bangabandhu Sheikh Mujib Medical University, as many as 2700 children died due to renal failure after taking toxic syrup from 1982 to 1992. The accused companies took a more reasonable approach. Recognizing that 90% of their products had no scientific validity, they argued that the fault lay with the drug administration, which should not have permitted their products in the first place.^[71] Recently, a lot of people are being cheated in buying adulterated insulin.^[72] According to the drug market intelligence, an estimated Tk 600 crore of counterfeit medicines is traded in the Tk 18,000 crore medicine market in Bangladesh each year.^[73-75] The government revoked licenses of 20 pharmaceutical companies for producing adulterated and low-quality medicine back in 2016.^[76] Besides those, the parliamentary panel recommended that licenses of 14 companies to manufacture antibiotics (penicillin, non-penicillin, and cephalosporin groups) be revoked and permission of 22 companies to produce medicine of penicillin and cephalosporin groups be suspended.^[54,77-82] The court also ordered the government to immediately stop these companies from producing medicines. However, the government is yet to act on it. A total of 370 cases of fake medicines had been filed in the first

6 months of 2019, according to the DGDA.^[83] Even hospitals such as Apollo and United were accused for keeping and selling of substandard reagents and drugs.^[54] It should be further noted that there are two Government Drug Testing Laboratories in the country, one unit in Chittagong and another in Dhaka.^[84,85] They are fully-equipped with modern machines and other testing facilities but their performance is much lower than (5% of the total produce) present demand where there are more than 275 pharmaceutical companies have more than 25,000 brands that produce more than 100,000 batches of medicines.^[86]

QUALITY OF MEDICAL EDUCATION

In a parliamentary session in June 2019, the Health Minister informed that close to 50% of teaching positions are vacant in public medical and dental colleges, where most of the vacant posts are of the basic subjects.^[87,88] The disappointing poor performance of the private medical colleges noted from the honorable prime minister in a seminar on critical disease treatment in Bangladesh.^[89] A deficit in 65% of teaching staff in both public and private medical colleges has also been reported.^[90] In general, 80% of medical education should be provided to students through practical classes – the rest is theoretical knowledge. However, in some private medical colleges, students do not get to see patients even in their 4th year.^[91] Doctors without adequate practical and field-based applied knowledge are increasingly become risk factors to the patients they happen to treat. If a degree-holding doctor fails to find the vein for just a saline push-in and then takes the professional help of an experienced nurse, it is a shame not only for the doctor in question but also for the whole nation. Definitely, all these facts have deep connections to progression of medical studies and the quality of future doctors in Bangladesh.

DEBASEMENT OF HEALTH PROVIDERS' IMAGE

Bangladesh suffers from a severe lack of quality, reliable health-care services and an insufficient supply of health-care organizations to match growing demand. Specifically, there is a major supply gap between the care available to the poor and the rich, especially in light of the growing middle class. A major finding from the household survey was that patients are unhappy with the way health workers in government facilities behave toward them. The behavior of health workers toward them is one of the main determinants of satisfaction of government health service users.^[92] Although private hospitals and clinics have mushroomed in the country over the years, the quality of services delivered by most of those is found to be poor. Surprisingly, more than 40% of private hospitals, clinics, blood banks, and diagnostic centers are not registered with the relevant government agency.^[93] Patients and their families are found to be more appreciative of the

services offered by doctors, nurses, and other medical staff of foreign hospitals. They find doctors there, in particular, communicative and caring.^[94] The number of hospitals of the international or regional standard is quite a few and those are located only in Dhaka. Other cities and towns do not have modern health facilities in their true sense. Taking hostage of dead bodies for not clearing the hospitalization costs by some of the hospitals is becoming quite common.^[95-99] Other allegations also include: Swapping of a deceased child with a newborn baby, abducting, or stealing newborn baby,^[100-102] staff not attending to patients in coma,^[103,104] keeping clinically dead patients in ICU and raising hospital bill,^[105,106] wrong diagnosis and treatment,^[107-114] absence of human touch and care from the hospital staff, not maintaining proper medical history or lack of electronic health record, or illegible prescription writing^[115-125]. Hospital-acquired infection rates in Bangladesh may exceed 30% in some hospitals, according to Shahida *et al.*, 2016.^[126] Furthermore, rural practitioners routinely made errors in death certification practices (more than 95%) and medical record quality was poor (more than 70%).^[127] The country has still not introduced the subject of emergency and critical care medicine in the curriculum 1 for graduate medical students. The Basic and Advanced life support courses are still not introduced as an integral part of physician credentials in our hospitals, especially for those who work in Medicine, Pediatrics, Anesthesia, Emergency, etc. Emergency healthcare exists in the name not in real sense.^[128]

PRESENT TREND OF MEDICAL TOURISM

In a press briefing, former health minister of Bangladesh revealed four reasons of Bangladeshi patients seeking medical treatment in abroad (economic solvency, love for treatment abroad, health tourism, and in some cases, for the lack of suitable treatment facilities in the country) but he could not present any statistics about how many people go abroad from Bangladesh for treatment and the expenditure involved.^[129] However, public health experts, health economists, agents of foreign specialized hospitals, and patients reported that Bangladeshi seeking treatment abroad is on an upward trend since patients are unwilling to gamble with their life and health. According to director of the Institute of Health Economics at Dhaka University, "People do everything they can to get an accurate diagnosis. They run from one doctor to another, change hospitals, and so on. Eventually, they get frustrated when they do not see results. That is why people decide to go abroad for treatment."^[130] A low confidence on local doctors and flawed diagnosis is forcing a large number of Bangladeshi to travel abroad for treatment of medical conditions such as cancer, cardiac ailment, autism, infertility, as well as medical check-ups. In fiscal year 2015–2016, 165,000 patients from Bangladesh visited different hospitals of India but only around 58,000 medical visas were issued

to Bangladeshi nationals. Some 63,000–65,000 patients went to Thailand in 2015.^[131,132] On average, 1000 Bangladeshi go to India daily and some 10,000 in Malaysia (in a year) to take treatment, as reported by two directors of Indian and Malaysian consultancy firms.^[133] India, Thailand, Singapore, and Malaysia are the most visited countries by Bangladeshi medical tourists. Instead of playing the blame game, doctors should act responsibly, and government should acknowledge its huge responsibility for updating the health-care sector, according to Joint Secretary General, Diabetic Association of Bangladesh, and convener of National Health Rights Movement.^[130] For Bangladesh's economy, increasing medical tourism means the country economy is losing the amount of money Bangladeshi are spending abroad. About 700,000 people go to abroad every year for treatment spending US\$ 3.5–4.0 billion during the period 2018–2019 which was \$ 2.0 billion in 2012, due to lack of confidence on the local physicians and poor diagnosis system.^[94,132] The middle and lower middleclass families, in many cases, are forced to sell their property or spend life's savings or borrow from others to meet medical expenses abroad. At the same time this leads to drainage of hard-earned foreign currency. Bangladesh is becoming health tourism market for neighboring countries. To cash in on the growing demand from Bangladesh's rising mid-income people, some hospitals of India, Thailand, Singapore, and Malaysia have either opened their liaison offices or hooked clients through their consultants in Bangladesh.^[133]

PRESENT STATE OF PANDEMIC SITUATION HANDLING BY BANGLADESHI HOSPITALS

More than half of the 1838 coronavirus cases detected in Bangladesh have been reported in the capital Dhaka.^[134,135] The virus hit a total of 11 out of the 64 districts in the country until April 5, 2020 after the first known cases were reported around a month ago, according to the government's disease control agency IEDCR.^[136] Amidst this global crisis, Bangladesh has been identified as one of the 25 most vulnerable countries to be affected by the fast-spreading virus.^[137,138] By April 16, 2020, it was confirmed in 43 out of 64 districts.^[139] Many patients with fever, cold, and breathing problems – which are also COVID-19 symptoms – have gone untreated as the hospitals in Dhaka are sending them to the IEDCR for coronavirus test.^[140] Most hospitals are not in a position to provide doctors and other health associates with the personal protective equipment (PPE) such as masks, gloves, and infected patients who could walk into the hospital at any moment.^[141-147] According to the patients, many doctors are not providing services fearing the contagion, and lab technicians are shunning workplaces, and halting medical tests. In some cases, serious patients who are not affected by COVID-19, moved from one hospital to the other but could



Figure 2: Patients' Struggle in a Public Medical College Indoor.^[1-6]

Unsurprisingly, death due to “wrong treatment” or medical laxity and doctors' incompetence have been reported in the media all the year-round. Laws such as the Penal Code 1860, Code of Criminal Procedure 1898, Consumer Rights Protection Act, 2009 under which cases can be filed for legal remedies. In the event of death due to medical laxity, cases may be filed under the penal code, 1860, as death by laxity is a criminal offence and is punishable under section 304A of the penal code. There are also provisions for imprisonment and fine which are equally applicable to both the doctors and the complainants. In the realm of therapeutic care, challenges are: Public hospitals face no competition has neither built-in incentive system nor any culture to enforce discipline and conduct rules and punish the recalcitrant; there is no mechanism either to evaluate individual's performance or that of any health-care institution. Doctors usually give little time, often <1 min, to examine patients and mistreat them; fixated mind-set of hospital staff who overestimate their own performance, care little about the patients' experiences and do not know that patients' satisfaction index is related to clinical outcome.

not receive treatment and finally died, the media reported. In another case, the doctor fled leaving the patient behind.^[148-151] Doctors and other healthcare workers say they do not have adequate PPE and the health system cannot cope with the outbreak.^[152] Experts say elderly people infected with coronavirus need ICU to support the most.^[153] The number of older persons in the country is over 0.8 million.^[154] In line with international standards, a 100-bed hospital should have at least five ICUs.^[155] In reality, hospitals in Bangladesh have <1200 ICU beds (432 govt., 737 private) in total against a population of 161.4 million people.^[156] The health minister on March 29, 2020 reported that there are only 500 ventilators in the country.^[157]

CONCLUSION

Privatization not only makes services more expensive but also diminishes equity and accountability in the provision of services. The public sector should remain vital, and the government must remobilize it to provide the better provision of healthcare.^[158] However, problems such as a lack of personnel, absenteeism, and corruption in the public sector have also contributed to private sector growth. At the same time, affordable formal primary care services are scarce, and what exists is almost exclusively provided by NGOs

working on a project basis.^[159] NGOs, private organizations, and mobile phone companies are also providing e-Health services to the patients in different areas in Bangladesh. It is important to have modern hospitals in divisional and district headquarters. However, unwillingness of skilled and senior health professionals to work outside Dhaka turns out to be a major problem here. As if, to follow their footsteps even junior doctors despise postings beyond the capital city. A study on career choices among medical students in Bangladesh revealed that more than 50% of respondents wanted to practice abroad about 90% chose major cities as practice locations.^[160] According to another study, female medical students face challenges from the society as well as the family. After marriage, their husbands and in-laws expect them to prioritize their families over their career.^[20] These clearly reveal the motivation level of qualified doctors having posting in remote areas. It is high time the authorities act pragmatically on policies to create female-friendly workplaces everywhere. Doctors and nurses are usually demotivated by poor working conditions, unfair treatment, and lack of career progression; private and unqualified practitioners sought to please patients instead of giving medically appropriate care. However, attractive facilities might lure senior health professionals to cities and towns other than Dhaka. A robust surveillance is necessary for assessing the public health

situation in Bangladesh and prompt notification of public health emergency. The relevant policymakers do need to look into the issue seriously, if they are really interested to stop the outflow of funds on account of medical treatment abroad and ensure proper health treatment in the homeland. Foreign pharmaceutical companies (MNCs) such as Organon, Sanofi, GlaxoSmithKline, Pfizer, SK+F, ICI plc, Rhone-Poulenc Rorer, and Ciba-Geigy have closed their operation in this country, as they found the market here “not sustainable,” created a vacancy in quality drug supply for sure.^[54,161,162] A revolution needs more than improvements and upgrades.

Future recommendations

At <1% of GDP, government health spending in Bangladesh is among the lowest in the world.^[64] The WHO recommends allocating at least 5% of a country's GDP and 15% of the total budget for the health sector.^[163] Government should spend additional resources directly on government doctors, drugs, hospitals, and health centers and also increase the allocation in education to ensure quality by recruiting qualified teachers, retaining them by providing incentives and ensuring better infrastructural facilities and resources. Training of doctors/nurses and paramedics is a sine quo non for improving both preventive and therapeutic care.^[164] Hence, arrangements should be made to train round-the-year two categories of health staff-doctors and nurses belonging to the first category to receive training in health-care management/administration and the second category comprising of village doctors and SSC/HSC passed young men/women to receive training in preventive and primary therapeutic care in their respective Thana Health Complex and be designated as village health worker (VHW) to work in their own village. Some of the women will receive training in midwifery and be designated as birth attendants. The training of doctors/nurses should focus on patient-safety and patient-centered-care, in which healthcare is conceived of as a partnership between patients and health professionals. Doctors will be motivated to obtain feedback from patients about their experience. Hospital administration should lay down protocols for all procedures and surgeries, and standardize treatments. Nurses will be trained to affix in every ward check-lists like hand-washing/ alcohol rubs, use sanitized gowns and gloves, and stress on cleanliness. VHWs and Birth Attendants educate patients and their families, among other things, on how to maintain good health, nutrition level, and maintain families' health record. Nurses can be relieved of extra duties by appointing ward clerks. Building on further institutional capacity would be the next step in the way to improving healthcare. National Health Council, which is to be headed by the Prime Minister, can provide policy directions and evaluate overall progress in healthcare. The government can constitute a National Accreditation Council with the health minister at

the helm and make accreditation a mandatory requirement for all hospitals, and other health-care providers maintain a minimum standard. Hospital, community, and clinical pharmacy in Bangladesh have not been well developed due to lack of government policy.^[165,166] Pharmacy is taught in about 100 public and private universities in Bangladesh and about 8000 pharmacy students graduate every year.^[167] They can be more beneficial to the public if the good hospital and community practices are introduced properly. Interprofessional Education is essential to improve the quality of care, competent, and coordinated health-care delivery.^[168] This is also important in strengthening medication reconciliation and interprofessional medication reviews. Among chronic disease patients, particularly those under quarantine, there is a greater challenge in the supply of drugs and compliance with medications, although the safety and effectiveness of care are still critical for these patients. Home-care is especially important in these situations because hospitals are not seemingly safe during pandemic outbreaks. Telemedicine and telehealth technologies are especially effective during epidemic outbreaks, when health authorities recommend implementing social distance systems. Unnecessary diagnostic tests and cesarean sections are also common and impose a substantial economic burden on the poor.^[55,169,170] Health providers should impose litigation and special guidelines in the health policy to manage potentially life-threatening complications in both women and newborns. A patient and family advisory council can be constituted for all hospitals, which will take care of patients' concerns, including unnecessary diagnostic tests and procedures and coordinate with the management board of hospitals.

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Declaration of patient consent

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Conflicts of interest

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