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Assessment and Availability of Clinical and Therapeutic Guidelines and Protocols and Recommendations for preparing additional Clinical and Therapeutic Guidelines and Protocols for all levels of service delivery

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Technical Assistance to the Health, Population and Nutrition Sector Development Programme - HPNSDP

Technical Assistance by
GFA Consulting Group

ASSESSMENT AND AVAILABILITY OF CLINICAL AND THERAPEUTIC GUIDELINES AND PROTOCOLS AND RECOMMENDATION FOR PREPARING ADDITIONAL CLINICAL AND THERAPEUTIC GUIDELINES AND PROTOCOLS FOR ALL LEVEL OF SERVICE DELIVERY

FINAL REPORT
JUNE 2012

Study Conducted by
Data Management Aid

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Acronyms

CBHI	Community based health insurance
CDC	Centre disease control
DGFP	Director General of Family Planning
DGHS	Director General of Health Services
DH	District Hospital
DMA	Data Management Aid
DRG	Diagnosis related group
EmOC	Emergency Obstetric Care
EH	Engender Health
ESP	Essential Services Package
GB	Grameen Bank
GK	Gonoshystha Kendra
GKT	Grameen Kalyan Trust
HEU	Health Economics Unit
H&PSP	Health and Population Sector Program
HNPSP	Health, Nutrition and Population Sector Program
HPNSDP	Health Population and Nutrition Sector Development Program
IMCI	Integrated Management of Childhood Illness
ICDDR,B	International Centre for Diarrhoeal Diseases Research, Bangladesh
MDG	Millennium Development Goal
MedCH	Medical college hospital
MIHB	Micro insurance health benefit
MOHFW	Ministry of Health and Family Welfare
NCD	Non-communicable diseases
NHIS	National health insurance scheme
NITOR	National Institute of Traumatology and Rehabilitation
PHC	Primary Health Care
PLHA	People living with HIV/AIDS
PPTCT	Prevention of Parent to Child Transmission of HIV/AIDS
OGSB	Obstetrical and Gynecological Society of Bangladesh
OoP	Out-of-pocket
RMO	Resident Medical Officer

RSBY	Rashtriya Swasthya Bima Yojana
SBP	SSK benefit package
SSK	Shasthyo Suroksha Karmashuchi
UCS	Universal coverage scheme
UHC	Upazila Health Complex
UH&FPO	Upazila Health and Family Planning Officer
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children Emergency Fund
WHO	World Health Organization

EXECUTIVE SUMMARY

The goal of Health Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 is to ensure quality and equitable health care for all citizens by improving access to and utilization of health, population and nutrition services. Vision 2021 of the government has also envisaged modern and adequate social health insurance could mitigate the costs to the individual, family and society under a health care financing strategy. The goal is to strengthen the financial risk protection and extend health services with the aim of achieving universal health coverage. In order to ensure health care services for poor segment of the population, the Government of Bangladesh has embarked on piloting a benefit package towards institutionalizing a national health insurance scheme. Providing quality patient care services is an important component of the benefit package for which standard clinical protocols and therapeutic guidelines to support consistent decision-making should be made available in the health establishments. Recently compiled list of 101 guidelines gathered through personal contact, field visit, and web research reveal that guidelines are not only developed by the government alone or with assistance from WHO, but also by the national professional societies and senior clinicians of the tertiary level hospitals/institutes independently. The guideline development process is not well documented and systematically coordinated. Some guidelines did not have clearly defined intended users, ambiguities in the nomenclature of title and no mention of date or year of publication. The guidelines for top 10 high prevalent diseases are not available. Availability and reported use of the existing guidelines at the user's level was far from expected level. In the short term, identify guidelines from the compiled list and conduct a thorough review to remove ambiguities in the title, defining intended users and update date or year of publication. A national consultative workshop to generate consensus on determining minimum requirement for guideline development and review process, approval procedure and a system of ensuring availability and use and monitoring use of guideline should be organized with representation from all national professional societies and stakeholders. In the medium term, the process of developing additional guidelines for top 10 diseases should begin. At the same time the government should consider reconstituting the existing national technical committee charged with responsibility of formulating policy for guideline development and providing approval with representation from national professional societies and other stakeholders including epidemiologist, statistician and public health specialist with social science background to strengthen its capacity. The reconstituted technical committee should consider taking up preparation of guidelines for next top 10 diseases. Promoting good quality health care practice and ensuring rational prescription of drugs protecting health of the patients and reducing wastage should be judged in the context of national drug policy of 1982 and overall functioning of the health systems in Bangladesh. Greater understanding of benefit packages offered by other special health projects such as Grameen Kalyan Trust, Sajida Foundation etc. should be used in deciding the benefit package and to institutionalize a national health insurance scheme. In the long term, assistance from WHO in facilitation, setting commissions for conducting systematic review and professional editing for newly developed guidelines

should be used. The reconstituted technical committee with assistance from WHO should be in continuous dialogue with national and international professional societies to remain abreast of evidence based medicine, drug resistance, new treatment regimen, rational drug use, review and determine priority diseases for guideline development and growth in service offering capacity in the public sector and private sector and institute a system of selective monitoring and evaluation of the use of approved guidelines.

INTRODUCTION

Inequitable access to quality health care and evidence of significant gap between the rich and poor is hindering to attain social justice and equity in health in many low and middle income countries. Increasing demand and decreasing resources for health services resulting high out-of-pocket (OoP) spending for general health care and catastrophic illness associated with non-communicable diseases (NCD) that eventually contributing to household poverty. A big challenge for social protection is providing access to health care by strengthening availability of adequate public health workforce, in addition to developing new and effective strategies, alternative mechanisms such as, user fees and health insurance are considered as alternatives for reducing high OoP spending. As such alternatives should be considered for a comprehensive and equitable target of achieving universal health coverage and health for all.

People in the industrialized countries enjoy almost universal access to third-party financed health care or financed out of state revenue. A wide range of systems to finance personal health care includes taxation, social health insurance scheme and non-insurance funding systems are functional in the countries of Asian and African region. Rashtriya Swasthya Bima Yojana (RSBY) of India provide coverage for inpatient care for about 100 million people through government revenue and patient registration fee where premium per year per household is calculated at the state level. Outpatient and inpatient care coverage through general tax revenue and co-payment per medical visit by health service user for 66 million people provided under universal coverage scheme (UCS) in Thailand. Through a system of nationally generated fund and premium payment, extensive curative coverage is provided under national health insurance scheme (NHIS) for 14.5 million people in Ghana. Disease episodes through government and copayment for indigent and other vulnerable groups has been made operational for 9 million people under community based health insurance (CBHI) of Rwanda[1]. In both the regions provider payment mechanism is determined by a diagnosis related group (DRG) and capitation.

Generally there is a predominant view that provision of health service is the constitutional responsibility of the state. Many low and middle income countries have a history of providing health services free of charges despite problems of underfunding, uneven geographical distribution of health care facilities and retaining trained qualified health professionals in remote areas and regions. Obtaining a package of health care services through health insurance scheme is an unfamiliar and not well understood concept to a large segment of population in Bangladesh. There are approximately 19 life insurance companies including MetLife Alico covering health care of employees and their families in the formal employment sectors and individual policy holders mostly in the urban area. Poor and equity focused initiatives implemented by Gonoshystha Kendra (GK), Savar, Dhaka, Deedar Cooperative Society, Comilla and Community Health Care Project (CHCP) of ICDDR, B in Chokoria of Cox's Bazar district are widely discussed examples in the rural setting.

After liberation of Bangladesh, GK pioneered a system of charging for health services early 1970's in selected rural area initially as cost recovery mechanism and then extended to urban area in mid 1990's transformed into some kind of health insurance system over the years of operation[2]. The key feature of GK is differential consultation fee according to socio-economic status for specialized services and a minimum consultation fee and 25% reduced cost of drugs for any outpatient service.

Deedar Cooperative Society of Comilla instituted a system of buying health services from qualified physicians and family planning services from the local family planning clinics for their members during 1984-89. In case of illness, every member was reimbursed up to $5 per annum for cost of medicine referred by the cooperative society. The fund for the health scheme was generated and managed through other development activities of the society[3].

Engaging indigenous local organizations in mobilizing the community for collaborating with the government and health service provision (selling medicines at 10% lower than market price) and pathological tests (blood for hemoglobin, sugar and albumin of urine and blood pressure) without any financial and material assistance from outside with technical support by the CHCP of ICDDR, B in Chokoria of Cox's Bazar district accumulated nearly $8,000 within seven years of operation (1994-2001)[4]. Detail information about operational status and ascertain the extent of poor have been benefited as a result of all these initiatives is needed so that lessons can be utilized by the public sector health system.

Comprehensive micro insurance health program under Health Education & Life Security Program (HELP) implemented by Sajida Foundation[5] since 2006 in selected rural setting and Grameen Kalyan Trust (GKT) in seven regions of Bangladesh[6] since 1997 are often referred examples of currently operational micro insurance health programs. Regardless of difference in operational methodology and management style, this has become evident that efforts of all these above referred agencies were targeted to reach health services to the poor.

High impact public health interventions of the Ministry of Health and Family Welfare (MOHFW) delivered through field workers, paramedics and mobile outreach sites network during past two decades in remote areas of Bangladesh has provided a solid foundation and opportunity for further acceleration of achieving health related Millennium Development Goal (MDG) targets. The goal of Health Population and Nutrition Sector Development Program (HPNSDP) 2011-2016 is to ensure quality and equitable health care for all citizens by improving access to and utilization of health, population and nutrition services[7]. Vision 2021 of the government has envisaged modern and adequate social health insurance could mitigate the costs to the individual, family and society under a health care financing strategy. The goal is to strengthen the financial risk protection and extend health services with the aim of achieving universal health coverage.

The Director General of Health Services (DGHS) of MOHFW is committed to provide the best quality care to patients and users of health services, in order to meet their expectations and needs, and to improve service delivery[8]. There is unanimous agreement about the importance of standard clinical protocols and therapeutic guidelines to support consistent decision-making in clinical inpatient care regardless of health service offering capacity, priority and mode of service delivery and socio-cultural context of the respective country. However, there may be ongoing confusion with regard to terminologies used to describe various forms of evidence based tools, to inform clinical practice to support the decision-making processes in patient care[9].

There has been a big surge of development and adaptation of clinical protocols and therapeutic guidelines in accordance with guidelines recommended by World Health Organization (WHO). These guidelines were introduced to strengthen clinical skills and management techniques of all cadres of health care providers to provide essential services package (ESP) and other key interventions aimed at improving the efficiency, quality, safety of and access to care during last Health and Population Sector Program (H&PSP) of 1998-2003 and Health, Nutrition and Population Sector Program (HNPSP) of 2006-2010. The development and update of Clinical Protocols and Therapeutic Guidelines expected to be a continuous process in the HPNSDP of 2011-2016 currently implemented by MOHFW.

BACKGROUND

The Health Economics Unit (HEU) of MOHFW supported by German Development Cooperation (financed through KfW) with technical assistance in the areas of health financing/ health economics/ equity will be embarking on piloting health protection scheme titled “Shasthyo Suroksha Karmashuchi (SSK)” in the area of health financing/health economics/equity in order to increase access of the poor to hospital inpatient care by reducing financial barriers. Under the leadership of HEU of MOHFW, discussions have been conducted with key stakeholders and policy makers for identification, design and implementation of a health financing pilot in selected areas. The health financing pilot will ultimately investigate new sources of financing for the health care system in Bangladesh. It has been agreed that the ultimate aim of the project is to create a national health insurance scheme. Such sources may include introducing compulsory or voluntary health insurance for the entire population and health insurance premiums. The pilot will also test mechanisms to improve the quality and increase demand of health services. Three 50 bedded Upazila Health Complex (UHC) in Tungipara Upazila of Gopalganj, Rangunia Upazila of Chittagong and Debhata Upazila of Satkhira districts have been selected where all sanctioned positions are filled and Emergency Obstetric Care (EmOC) service is available.

The piloting is expected to provide evidence of increased access of the poor to hospital inpatient care and a foundation for building a system of coverage of services through health

insurance[10] nationally. The piloting of SSK model requires standardization of clinical protocols and therapeutic guidelines to support consistent decision-making processes in quality patient care which should be available with the users in all health establishments operated by public sector, including nongovernmental organizations (NGOs) and private sector in Bangladesh. The proposed study will inform the design of the pilots by providing preliminary analyses.

Data Management Aid (DMA), a local consulting firm has been recruited to assist HEU of MOHFW and GFA consulting group from Germany and entrusted with the responsibility of preparing a comprehensive list of clinical protocols and therapeutic guidelines currently available and used by the health care providers in Bangladesh.

OBJECTIVES AND METHODOLOGY

General objectives

As stated in the Terms of Reference (TOR), the general objective is to prepare recommendations for developing and producing standard treatment guidelines for the SSK Benefit Package (SBP) to assist providers in diagnosing and treating medical conditions and contribute to the improvement of service delivery at all levels.

Specific objectives

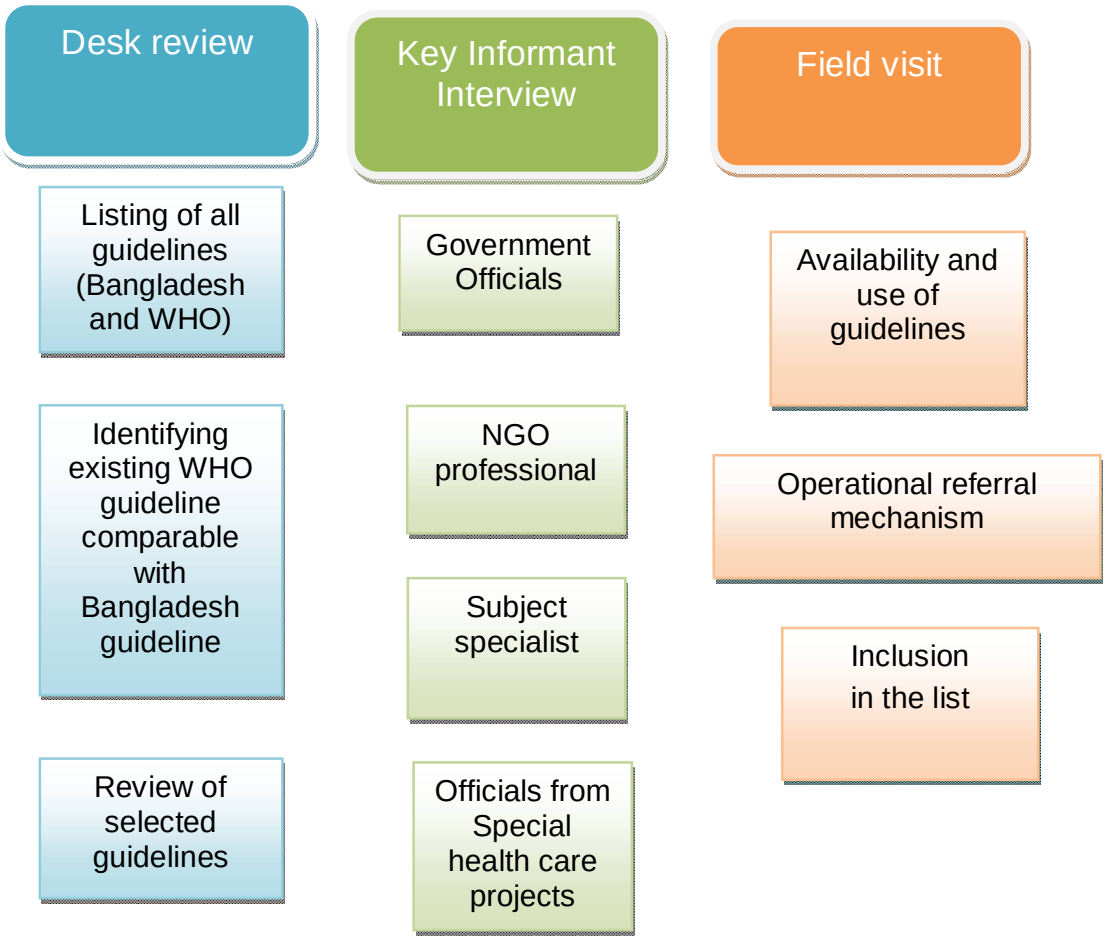
- Identify and review existing guidelines that relate to SBP;
- Recommend a process for developing new guidelines as a supplement, if current guidelines do not meet SBP requirements ;
- Provide the basis for determining appropriate levels for practicing good quality health care based on training and qualifications; and
- Recommend strategies for rational prescription of drugs to protect the health of patients and reduce wastage.

Methodology

In responding to the need of preparing a comprehensive list of all available clinical guidelines and therapeutic protocols, DMA made all out effort and applied several methodologies. This includes desk review, assessment of status and standard of the guideline in accordance with WHO, field visit to a SSK piloting area and key informant interviews (KII) with concerned stakeholders.

Desk review: This included stock taking of guidelines and protocols currently available and used in Bangladesh and review of standard in accordance with WHO and web research. Numerous attempts were made to gather as many clinical protocols and therapeutic guidelines as possible. In consideration of SSK focus on inpatient care and voluminous time consuming undertaking, it was intended to review clinical and therapeutic guidelines for 10 high prevalent diseases. The high prevalent diseases were selected from the list of 157 introduced by the Management Information System (MIS-Health) unit[11] of DGHS in 2010 for the purpose of monthly reporting on inpatient care provided from UHC, District Hospitals (DHs), Medical College Hospitals (MedCH) and Postgraduate Institutes/Hospitals. Excluding those categorized as "others" and the list of reported diseases from January to December 2011 were ranked from highest to lowest. Given the time frame to complete this assessment, it was anticipated to complete review a maximum of 10 guidelines after ranking the disease profile according to their prevalence rate. But this was not easy because comparable guidelines from Bangladesh and WHO were very few, less number of guidelines were developed before last 5 years. More time spent in collecting hard and soft copies of all 100 guidelines. The methodology of the review process has been diagrammatically presented below.

Diagrammatic representation of the review process of the clinical and therapeutic guideline



Field visit: Field visit to Gopalganj district and Tungipara Upazila was undertaken to ascertain the availability and use of clinical protocols and therapeutic guidelines from May 18-20, 2012. The reported practice, usefulness, difficulties faced during use of available guidelines, areas to be included and guidelines unavailable were also collected.

Since DHs will act as secondary referral point, DMA professionals planned and decided to interview at least Consultant (Medicine) and Consultant (Gyne and Obs), one Resident Medical Officer (RMO) and couple of medical officers (MOs). Because of preoccupation Consultant (Gyne and Obs) could not be interviewed but only Consultant (Medicine) was available for interview. Two MOs (IMCI) and one MO (Medicine) in the concerned DH were interviewed. The interviews had to be conducted during their busy hour of seeing outpatient. The functioning of currently operational referral mechanism was also intended to be assessed by preparing a list of diseases referred to DHs from UHC including reasons but could not be done in a best possible manner. However, those respondents of DH informed that they normally recommends MedCH in Khulna as tertiary level but the preference of the caretakers are also considered in which case MedCH in Faridpur is another tertiary level. The Civil Surgeon cum Superintendent of DH was in Dhaka on official mission.

At the Upazila level, DMA professionals decided to interview Upazila Health and Family Planning Officer (UH&FPO), RMO, at least one consultant, and couple of MOs of UHC. The UH&FPO was overwhelmed with attending patients and referred to MOs to provide information. One senior medical officer in charge of demand side financing (DSF) program, one MO of integrated management of childhood illness (IMCI), one MO (TB) and a sub assistant community medical officer (SACMO) were interviewed. The MOs and SACMO were quite informative because they received training on use of IMCI guideline. The functioning of currently operational referral mechanism was also explored. It was not possible to collect any list of diseases referred to DHs due to paucity of time. But DH was frequently mentioned by them as a place of referrals.

KII with stakeholders: The respondent of KII included Line Directors (PHC & ESD, Hospital, CDC, NIDCH, TB & Leprosy and MIS-Health), one program manager, IMCI, two deputy program managers of hospital in the DGHS and selected national professional officer of WHO, Dhaka and professionals of other organization with expertise in the concerned area. Additionally, clinic managers in the NGO sector and Regional Manager, Grameen Kalyan Trust (GKT) and informal discussion was held with a subject specialist and a some members of national technical committee charged with responsibility of formulating and approving clinical protocols and therapeutic guidelines in the DGHS.

Informal request for a short meeting with one of the contributing editors to discuss about the decisions and development of guidelines, standard review process followed in the development of “Clinical Management of Diabetes Mellitus in Bangladesh- Principles and

Guidelines" by a national professional society was declined on the plea that the guideline is "yet to be finalized".

One clinic operated by Smiling Sun (SS) in Dhaka was visited to collect similar information and identify any other guidelines are in use. The clinic manager informed that all national guidelines on IMCI, RTI/STI, TB, infection prevention and family planning are used. The clinic manager also informed some of their staff members have received specialized training on family planning from abroad. The content of specialized training was not investigated. Aaddin Hospital, Dhaka, Dhaka Medical Hospital, ICDDRB, Dhaka Shishu Hospital and National Institute of Traumatology and Rehabilitation (NITOR), Dhaka are designated for referral of cases for which referred poor patients are treated more or less free.

RESULTS AND FINDINGS

In Bangladesh, the DGHS provides stewardship in developing disease specific national guidelines and protocols often with technical support and through adaptation from WHO. Guidelines are also developed by national professional societies and motivated senior clinicians of the medical education establishment. The development of guidelines by national professional societies and motivated senior clinicians uses or adapt the materials published by Centre Disease Control (CDC) and concerned international professional societies.

Availability of Clinical Protocols and Therapeutic Guidelines: The result of desk review, web research, information from NGO sector, special health care project and national level line directors, the professionals and staff of DMA could identify and prepare a list of 101 clinical protocols and therapeutic guidelines (Annexure-1) available for use in Bangladesh. Of those, 72 were developed by DGHS and 29 by WHO independently and others by different national professional societies and senior clinicians since 1990 until present. Majority of these guidelines were developed in the broader area of child health, maternal health, HIV/AIDS, tuberculosis, malaria, kala-azar and specific diseases like, dengue fever, influenza, poisoning, snake bite and enteric fever and introduced before 2007. Given the time frame, this list of 100 clinical protocols and therapeutic guidelines cannot be claimed to be a comprehensive one. Hard copy of only a few listed clinical protocols and therapeutic guidelines could be gathered. Majority of the guidelines of MOHFW did not have any reference list. Some of the listed guidelines did not clearly state about the intended users, target, disease or condition and absence of supporting discussion in the text. Only four guidelines did not have any date or year of publication. The trend in development of majority of the guidelines indicates that the DGHS has made significant effort in producing a significant number of treatment guidelines for improving clinical care since 2007.

Disease specific guidelines have been developed by Diabetic Association of Bangladesh and Asthma Association of Bangladesh. It was not clearly understood how and why a particular

disease was selected for guideline development. It was also not clear how completeness and comprehensiveness of information in the guideline was assessed, whether user friendliness of developed guidelines was tested according to different echelon of service provision. The text in the preface of one of the collected guideline stated, “documents of international bodies” has been compiled since July’ 2007 and then “after thorough discussion” consensus were reached in the development of “Clinical Management of Diabetes Mellitus in Bangladesh-Principles and Guidelines”.

Some of the guidelines were found to have titles like, “national guideline”, "clinical management”, “treatment guideline”, “field guide”, “technical manual”, “training module” and “recommendations" does not give clear impression about the content explicitly and appears to be field workers and paramedics oriented. Possibly this has occurred due to big surge on the development of guidelines with focused attention on improving management techniques of field workers and strengthening clinical skills of paramedics for delivering high impact public health interventions.

Rigorous attempt was made to collect all clinical protocols and therapeutic guidelines available in the UHC and DH. This was also not easy because majority of the respondents had difficulty in understanding term “clinical protocols and therapeutic guidelines”, uncertainty about their current location and limited time. After rephrasing “criteria regarding” “guideline for diagnosis to treat a diseases” the respondent could name the guidelines available. Majority of the respondents did not have any personal copy of the guidelines and not sure about the availability of guidelines at their work place. Therefore, photocopy of the front page of the available guidelines were preferred. Additionally, pages of selected guidelines pasted on the wall of UHC and DH were found especially in the labour room.

There was no separate guideline for pneumonia but it is included in the IMCI for children under five years of age. Clinical protocol for Acute Poisoning, Acute Respiratory Distress, Jaundice, Diabetes Mellitus, Acute Abdomen, Unconscious Patients, Hypertension, Acute Bleeding, Acute Febrile Illness, and Fever in children is under development by the DGHS following existing procedure.

Guideline development process: Information on process and steps involved in the development of guideline varies between and among the organizations, national professional societies, department of tertiary level teaching hospitals/institutes and from disease to disease in Bangladesh. From this review it appears, concerned Line Directors in the DGHS normally initiate the proposal of developing new guideline for their respective area. In most cases national guidelines and protocols are developed often in collaboration with WHO and sometimes with WHO, UNICEF and UNFPA. There are occasions, the NGOs work with concerned Line Directors in developing national guidelines and protocols. The national technical committee headed by Additional Director General, Administration (ADG-Admin)

in the DGHS along with an expert committee of prominent clinicians provides final clearance for a guideline and then formal approval is provided by MOHFW.

The number of copies of guidelines and protocols to be printed and distributed depends on the number of stakeholder users of respective guidelines and protocols usually determined by the concerned Line Directors for their respective area. The DGHS does not have any professional trainers and there are very few guidelines on training on guideline use. Normally implementation of any large scale training program is carried out by organizing training of trainers (ToT) to prepare a group of master trainers. These master trainers are normally selected from the group of experienced topic specific clinicians. The venue and duration of ToT is usually decided depending on the size of stakeholder users of the guidelines and protocols to be trained. Normally ToT is conducted nationally or regionally depending on the topic of interest and resource availability. The duration of training on guidelines and protocols use can vary from 1 to 5 days depending on the topic of interest.

The guidelines and protocols are prepared and implemented by DGHS not by echelon of service delivery rather by level of implementation. There is no independent authority for monitoring guidelines and protocols use. Normally motivated concerned Line Directors work by themselves according to their operation plan and make use of in charge at the implementation level for monitoring guidelines and protocols use. Though infrequently, feedback workshop methodology is also used for monitoring guidelines and protocols use. It was not possible to identify whether all guidelines and protocols are necessary for all level of public sector facilities given their service offering capacity.

During this review it was also identified that guidelines are developed independently by national professional societies and motivated clinicians of the tertiary level teaching hospitals/institutes using or adapting the materials published by Centre Disease Control (CDC) and concerned international professional societies. Though many of these developed guidelines are in use in the national health system but the development of these guidelines has not always followed a systematic pattern such as, decision on the need for a treatment guideline, consensus about formation of core expert committee, guideline user's level, approval from competent national authority, training of use of guideline and monitoring of use.

Disease specific guidelines have been developed by Diabetic Association of Bangladesh and Asthma Association of Bangladesh. It was not clearly understood how a particular disease was selected for guideline development. It was also not clear how completeness and comprehensiveness of information in the guideline was assessed, whether user friendliness of developed guidelines was tested according to different echelon of service provision.

Review of standards: Though it was anticipated to complete review a maximum of 10 guidelines for top 10 diseases selected from national morbidity profile published by MIS-

Health of the DGHS in order to assess how they relate to SBP. But DMA professionals were compelled to consider other alternatives due to unavailability of guidelines that matches those top 10 diseases. Large majority of the available guidelines were developed within last 5-6 years. In absence of country or context-specific clinical protocols and therapeutic guidelines and paucity of adequate time, selecting anyone from them for peer review and assessing how they relate to SBP became problematic. As such DMA professionals were compelled to make assessment of selected guidelines described previously.

Post partum hemorrhage (PPH) being a leading cause of maternal mortality did not appear in the list of top 10 high prevalent diseases. Considering public health and national importance as well as existing service offering capacity of the health service delivery infrastructure of Bangladesh and high potential of inclusion in SBP, national guidelines on PPH was reviewed with latest WHO guideline as a "test case" focusing on steps followed in the development process for easy understanding of the audiences without technical background. The review was limited to case definition, causes, use of decision tree or pictorial, recommended diagnostics, treatment regimen, key management questions, national and public health importance including service offering capacity of the health service delivery infrastructure in Bangladesh. A comparative review of the guideline on PPH developed by DGHS and WHO is shown in Table 1. The reviewed guidelines are:

1. Active Management of 3rd stage of labor, Trainee's Handbook, DGHS, MOHFW, 2008.
2. WHO Guidelines for the management of postpartum hemorrhage and retained placenta, 2009

Table 1: Review of guideline on PPH developed by DGHS and WHO

Characteristics examined	**Guideline developed by**					
A. Steps followed in the development process:	**DGHS**			**WHO**		
	Yes	No	Not stated	Yes	No	Not stated
1. Technical committee approval	✓			✓		
2. Formation of expert committee	✓			✓		
3. Literature review conducted		✓	✓	✓		
4. Intended users defined	✓			✓		
B. Case definition provided	✓			✓		
C. Causes described	✓			✓		
D. Pictorial used	✓			✓		
E. Diagnosis	✓					
F. Key management questions	✓			✓		
G. National importance described	✓			✓		
H. Public health importance described	✓			✓		

The Bangladesh guideline is more specific with pictorial description, checklist and practical management and context specific. A checklist on primary PPH management and special management of PPH has been included.

The WHO guideline was more generic, supported with research findings in various settings. There are updated treatment regimens, for example, 15-Methyl Prostaglandin F2a was mentioned as a drug for management of PPH. A guideline on initial assessment and basic treatment is included.

Other than updated treatment regimen in WHO guideline, there was no significant difference between two guidelines.

The rise of NCDs is a global as well as national concern. The DGHS also took the initiative in response to this issue. Though year of publication is not mentioned, the DGHS developed a guideline on coronary care syndrome that has been selected as another example. No particular guideline on coronary care syndrome from WHO could be found. This guideline was also assessed following similar review process.. The result of review is shown in Table 2.

Table 2: Review of Guideline on Coronary Syndrome Management Procedure and Checklist

A. Steps followed in the development process:	**2010**		
	Yes	No	Not stated
1. Technical committee approval			✓
2. Formation of expert committee	✓		
3. Literature review conducted			✓
4. Intended users defined	✓		
B. Case definition provided	✓		
C. Causes described	✓		
D. Pictorial used		✓	
E. Diagnosis	✓		
F. Key management questions	✓		
G. National importance described			✓
H. Public health importance described			✓

Management strategies at tertiary or specialized hospital, UHC and DH have been included. Outline and general management of acute coronary syndrome is given followed by management strategies in emergency care, in the Coronary Care Unit (CCU) of the tertiary or specialized cardiac hospital, in case of DH, emergency care and subsequent care, preferably by a Cardiology Consultant and basic care at UHC level and subsequent care, preferably by a Cardiology Consultant have been included. Discussion on thrombolysis and protocol for streptokinase was given.

Since the availability of guidelines was very few to be reviewed, DMA professionals selected two more guidelines; one developed by a national professional society in five years interval and matches with one of the top 10 prevalent diseases. These guidelines were selected for review to understand the developmental process and difference in assessing extent of standard in accordance with WHO.

The Asthma Association of Bangladesh developed two guidelines on bronchial asthma titled "Guidelines on bronchial asthma 2005" and "Guidelines on bronchial asthma in 2010". Similar review process described for PPH was also followed for these guidelines on bronchial asthma produced in 5 years interval and the result is shown in Table 3.

Table 3: Review of Guideline on Bronchial Asthma developed two periods

Characteristics examined	**Guideline developed**					
A. Steps followed in the development process:	**2005**			**2010**		
	Yes	No	Not stated	Yes	No	Not stated
1. Technical committee approval	✓			✓		
2. Formation of expert committee	✓			✓		
3. Literature review conducted		✓	✓		✓	✓
4. Intended users defined	✓			✓		
B. Case definition provided	✓			✓		
C. Causes described	✓			✓		
D. Pictorial used	✓			✓		
E. Diagnosis	✓					
F. Key management questions	✓			✓		
G. National importance described	✓			✓		

Guideline of 2005: Guideline on Allergic Rhinitis, British Asthma Society, Department of Health and Human Services, USA was extensively consulted in describing case definition, diagnoses and treatment regimen.

Guideline of 2010: There has been some revision and addition. A new classification on control of Asthma and a new tool of the Asthma Control Test (ACT) has been included. Management of Asthma in pregnancy is also included. A clinical quality index has been revised.

The text in the preface of one of the collected guideline stated, "documents of international bodies since July' 2007" has been compiled and then "after thorough discussion" the consensus were reached in the development of "Clinical Management of Diabetes Mellitus in Bangladesh- Principles and Guidelines".

From the review of three different guidelines understanding on current practice or procedure used for the development of disease-specific guidelines can be learned. WHO guideline on PPH has a list of reference material. This was absent in the guideline of MOHFW. In the preface of guideline of the MOHFW it was mentioned that 'National Taskforce to prevent PPH' developed the guideline under the guidance of Obstetrical and Gynecological Society of Bangladesh (OGSB) and assistance from EngenderHealth (EH). Additionally, an expert panel from DGHS, DGFP, WHO, UNFPA, UNICEF, ICDDR,B, and a senior professor of gynecology and obstetrics was involved in the development process. This training handbook was approved by the manual review committee of DGHS.

The management procedure and checklist for acute coronary syndrome was developed under the quality assurance program of HNPSP (2006-2010). A group of reputed senior clinicians from the tertiary level hospitals and national institutes developed this management procedure. But there was no involvement of WHO and no reference list was found.

Both the version of national guidelines of Asthma and COPD (2005 and 2010) were developed by a panel of senior clinicians and academicians from the national institutes and private hospitals. The name of British Guidelines on Management of Asthma and examples of other countries were used in the list of reference in both the edition but no particular reference from WHO was available. Though the latest edition contains message from the Minister and State Minister of MOHFW, but there was no mention of formal approval by any authorized agency of the government. Having a message in the preface from the minister or national policy makers gives an indication that those national professional societies are adhering to approval procedure.

From the review of three different guidelines, lessons about current practice or procedure used for the development of disease-specific guidelines can be learned. Initiative taken either by an agency of the government or by a national professional society in guidelines development does not follow any consistent pattern.

Diarrhea, assault, pneumonia, peptic ulcer, road traffic accident, enteric fever, poisoning, bronchial asthma, chronic obstructive pulmonary disease (COPD) and anemia were top 10 high prevalent diseases treated as inpatients after ranking nationally. Ranked high prevalent diseases were re-ranked by national, sex, UHC, DH and tertiary level hospitals to examine any major change in the prevalent diseases pattern. After re-ranking, the position of diarrhea, assault, pneumonia and peptic ulcer did not change but enteric fever, road traffic accident, poisoning, COPD, bronchial asthma and anemia shifted in their ranking within top 10 diseases. Current status of availability of guidelines for national top 10 high prevalent diseases is shown in Table 4.

Table 4: Status of guidelines for top 10 high prevalent diseases

Top 10 high prevalent diseases	Status of Guidelines		Remarks
	Bangladesh	WHO	
Diarrhea	Available	Available	
Assault	Unavailable	Unavailable	
Pneumonia	Available	Unavailable	Under IMCI
Peptic ulcer	Unavailable	Unavailable	
Road traffic accident	Available	Unavailable	Under emergency management
Enteric fever	Unavailable	Available	
Poisoning	Available	Unavailable	
Bronchial asthma	Available	Unavailable	
COPD	Available	Unavailable	Under Bronchial asthma guideline
Anemia	Available	Available	

The health related MDG has no list of top 10 diseases rather focuses on reduction of mortality in some identified broader areas. Eclampsia, PPH and retained placenta, obstructed delivery being the leading cause of maternal mortality which is a national priority and health related MDG but did not appear in the list of top 10 high prevalent diseases.

Information on top 10 high prevalent diseases reported as outpatient from Gopalganj DH, Tungipara UHC and areas served by GKT presented in Table 5. Although not comparable, but these data provides an idea about variation or commonalities in the morbidity pattern in rural setting from guideline perspective. Even there is a variation between DH and UHC in the order of ranking. Disease listed as female disease in DH and UHC and leucorrhea used by GKT is difficult to interpret. This issue is worth exploring in detail.

Table 5.Top 10 diseases treated as outpatients by different health establishment

Diseases	Treated as Outpatients					
	Gopalganj DH		Tungipara UHC		GKT	
	Rank	%	Rank	%	Rank	%
Others	1	21.4	2	22.7	10	4.80
Injury	2	20.3	3	13.3	0	0
Eye diseases	3	13.5	0	0	7	3.99
Female disease	4	10.2	1	27.3	5	4.71
Diarrhoea	5	10.0	4	11.4	0	0
Abdomen pain	6	4.4	6	5.4	0	0
Fever/PUO	7	3.7	5	7.5	2	10.70
Poisoning	8	3.4	9	2.2	0	0
ARI	9	3.2	7	5.3	3	6.36
Hypertension	10	3.2	11	0.6	8	3.86

Reported use and obstacles to use: Almost all respondents in the DH had difficulty in understanding term “clinical protocols and therapeutic guidelines” and uncertainty about their current location in the DH. Those, who had some familiarity, could provide some information. One of the specialist consultant remarked;

“if we have any confusion, we consult our seniors or discuss with other friends but this has never been a problem whether clinical protocols and therapeutic guidelines are available or unavailable”.

The above verbatim of specialist consultant reflects the extent of guideline use. Then the specialist consultant referred to one of the MO of DH to check the availability of any clinical protocols and therapeutic guidelines. The refereed MO showed photocopy of three set of guidelines collected from the friends as personal copy.

Another MO in DH reported that standard guideline may be available with specialist consultant but unsure and reported that guidelines are normally unavailable with the juniors. The MO trained in IMCI reported the use of standard guideline is contingent upon time to

follow each and every step recommended for an ideal number of patients and availability of trained supporting staff and commented;

"let us say, recommended ideal number of outpatients is 30 but there are 60, hence attending doctor and support staff has to divide the responsibility. Same is true when ideal number exceeds in case of inpatients".

The above verbatim reflects a different scenario of use pattern and perceived obstacles in using the guideline. However, verbatim from one specialist consultant and one MO should not be generalized but an indication of style and behavior of individual clinician.

The situation in UHC about the availability of national guidelines was mixed. The UH&FPO and other senior MO had similar difficulty of understanding. The trained MOs were better familiar with the national guidelines on IMCI, TB and maternal health. One MO recommended inclusion of steroid in low doses for treatment of severe pneumonia would have been better.

KII with Stakeholders: One of the respondents (Line Director of DGHS) was very cooperative and found to be well versed about entire process from initiating the development of guideline, approval process, distribution of guidelines and monitoring guideline use by the DGHS. The Line Director informed that DGHS mostly works with technical assistance from WHO. Sometimes the need for the development of a guideline also recommended by WHO. DGHS also considers study findings from Bangladesh and neighboring counties on new information of emergence of a new drug, drug resistance and new treatment regimen in deciding about locally decided development of guideline. Mostly WHO material is used as gold standard while developing any new guideline locally. Usually the concerned Line Director initiate the proposal of developing new guideline and process through the national technical committee along with topic based expert committee headed by Additional Director General, Administration (ADG-Admin) in the DGHS. The criteria for selection of expert committee are self determined and dependent on availability of time, interest and motivation of the selected expert committee members. The technical committee takes a day for approving the new guideline. The number of copies of guideline to be printed depends on the number of stakeholder users. The duration of training on guideline use can be from 1 to 5 days depending on the topic of interest. Normally telephonic and feedback workshop methodology is used for monitoring guideline use.

The Line Director, MIS-Health of DGHS was quite frank and open in confessing about ambiguities in the disease profile currently published. The Line Director reported that the system is yet to mature and there is a need for training of the users about the system and its importance in national planning and 10^{th} version of international classification of diseases (ICD-10). This will take some more time to become fully operational and produce reliable and good quality data. There is a good sign that large numbers of professionals, national

managers and planners have started using available data no matter is quality of data but this practice was previously absent. There is a plan to introduce a system of electronic inpatient registration and discharge which should help producing good quality data. The Line Director narrated the improvement in development process of reporting from 33 to 156 listed diseases +1 others over the years. The list of 156 diseases has been prepared with inputs from clinical assistants and registrar of DH and MedCH. The training of the user about MIS , ICD-10 and its importance national planning for the clinical assistants and registrars has been planned and likely to be completed this year. The Line Director mentioned that all private sector hospitals in Bangladesh is obligated to provide information on inpatient facility based delivery and caesarean section but completeness in their reporting cannot be ruled out. But the situation is gradually improving.

Despite no direct involvement in the guideline development process, the Line Director mentioned guidelines and technical standards are developed mostly with assistance from WHO. With regard to locally emerged need for the development of guideline, scientific evidence is considered and concerned Line Director-Hospital and Line Director-PHC and ESD normally bring it to the notice of DGHS. But there is a scarcity of local scientific evidence and advocacy, this is not always systematic. But the role of DH and MedCH are also not ignored in the event of an unknown condition with high case fatality. In that case the information is passed on to the Institute of Epidemiology and Disease Control Research for corrective action.

One of the respondents i.e. national professional officers of WHO on IMCI reported that WHO recommended guideline is normally adapted to Bangladesh setting. Usually the professionals of DGHS, WHO, ICDDR, B and UNICEF are involved in adaptation process and then finalizes before a formal approval is sought. National professional officers of WHO acknowledged that often adequate training of users can not be given that can contribute to low use of guideline.

Special Health Projects

Acknowledging difference in operational methodology and management strategy among and between these agencies, several field tested micro health insurance models in the rural setting are available. However, insufficient documentation and access limitation to available documents prevents detail assessment of the extent of equity in health service provision, functional referral mechanism, claim reimbursement and measurable change in health indicators. However, widely known example of “best practice” is yet to emerge. Ignoring the debate of best practice, there are evidence of some commonalties in the under micro health insurance package offered by these projects i.e. increased opportunity of the poor to consult a qualified physician, receiving drugs at lower rate than market price, minimum pathology and reimbursement for hospitalization.

DISCUSSIONS AND POLICY IMPLICATIONS

Clinical protocols and therapeutic guidelines used in the developed countries aimed for guiding decisions and criteria regarding diagnosis, management and treatment of specific diseases[12]. The WHO has categorized three types of guidelines i.e. Emergency Guidelines, Standard Guideline and Full Guideline. Emergency Guidelines are produced in response to global emergency with a time frame of 1-3 months. Standard Guidelines are produced in response to request for guidance in relation to change in practice or policy area with a time frame of 9-12 months and Full Guidelines are produced that provides complete coverage of a topic or diseases with a time frame of 2-3 years[12]. The DGHS has accomplished a commendable job in the area of guidelines development. Most of the guidelines developed for Bangladesh setting seem to fall in the category of Emergency and Standard Guideline which is evident from the big surge of development of guidelines by DGHS in accordance with WHO in addition to meeting health related MDG targets focusing on reduction of mortality in some identified broader areas.

Though WHO was directly or indirectly involved in the development of majority of the guidelines in Bangladesh but the guidelines developed by local senior clinician extensively used the materials published by WHO. For example national cancer control strategy, guideline for severely malnourished children, national guideline and operational manual for TB control, training manual on poisoning management, IMCI guideline, guideline on ART or guideline for dengue fever management etc. Some guidelines were developed without any technical assistance from WHO but materials published by WHO was extensively used in developing guideline on Rabies, nutritional guideline on People Living with HIV/AIDS (PLHA), guideline for Prevention of Parent to Child Transmission of HIV/AIDS (PPTCT). Therefore, it would be inappropriate to conclude that the qualities of guidelines are not comparable with international standard.

It was not quite clear how the approval process worked or how much the national approval process matters. There is no clear guideline for reviewing the quality or standard or updating of these guidelines. It was also not clear whether national professional societies are fully aware about the requirement of following guidelines approval process.

Limited information suggests decisions and development of clinical protocols and therapeutic guidelines do not seem to follow uniform pattern and developed in uncoordinated manner. There are multiple guidelines under broader areas and topic specific. There is also evidence that guidelines are being developed by a selected group of senior clinicians for use in the existing health service delivery infrastructure of MOHFW. For development of clinical protocols and therapeutic guidelines no particular standard was used.

Though 101 guidelines have been identified and listed, but it was not possible to conclude whether all of them should be available and used in all level of public sector facilities. It was also unclear how decisions are made which guidelines should be used in which level of facilities, kind of assessment made in determining their availability and use, and systematic

assessment of morbidity profile and service offering capacity of each level of public sector facilities was considered.

The clinical guidelines are integral part of medical education and online opportunity of accessing the guideline developed by national level teaching hospitals in Bangladesh is available. However, it was reported that actual use of available guidelines is very much dependent on patient flow, availability of trained human resources and availability of guidelines with the clinicians.

It should be borne in mind that country specific guideline is likely to have much narrower focus than WHO document. Guidelines are formal advisory statements which should be robust enough to meet the unique circumstances and constraints of the specific situation to which they are being applied. The basic nature and intent of guidelines have also been expressed under other formats variously labeled as protocols, best practice, algorithms, consensus statements, expert committee recommendations, and integrated care pathways[13].

Promoting good quality health care practice and ensuring rational prescription of drugs to protect the health of the patients and reduce wastage should be judged from the overall functioning of the health systems in Bangladesh. The national drug policy of 1982 made an all out effort to promote quality health care practice and rational prescription of drugs. Accordingly a list of number of essential and life saving drugs was prepared to make them available to common people at a cheaper price. The drug policy is still in force but seems to operate under medico-political nexus. A study of this nature providing recommendation on this issue should not be considered ideal.

LIMITATIONS, RISKS AND ASSUMPTIONS

Short assessment of this nature is unable to provide greater understanding how decisions and development of guidelines are made and kind of standard review process is followed in the development of guidelines.

Majority of the respondents' stakeholders had to be interviewed during their busy schedule of providing outpatient care. The interview was frequently interrupted attending patient waiting at the door, other administrative functions and phone calls which were unavoidable. Also it was not possible to get a better understanding what extent development and preparation of a guideline is based on locally emerged need. It was not known about top 10 high prevalent diseases currently managed in the private sector hospitals and what kind of guidelines are currently used for inpatient care. The rises of NCDs are major concern but only bronchial asthma and COPD appears in top 10 diseases. Exclusively hypertension and diabetes are unlikely to be frequently treated as inpatient unless there are any associated complications.

The MIS-Health of DGHS has made a great stride in making nationwide inpatient morbidity profile available though some level of ambiguities, incompleteness and non compliance of

the private sector hospitals have been acknowledged by concerned Line Director is another limitation. But the process has started and there are opportunities for further improvement.

The pharmaceutical company can also volunteer to promoting and facilitating the development process and preparation of a guideline but conflict of interest issue is likely to be forgotten.

CONCLUSIONS AND RECOMMENDATIONS

In order to get a much wider perspective about the use of existing and other guidelines in MOHFW, NGO and private sector settings, a separate representative study should be commissioned. Better understanding on how the users are trained about guideline use and guideline are distributed. Based on this analysis it is clearly revealed that guidelines are developed with technical assistance of WHO in most cases and in some cases not in a systematic manner. The following i.e. short term, medium term and long term recommendations can be formulated.

Short term: Identify the existing guidelines require thorough review from the list of 101 guidelines. Undertake review of identified guidelines to remove ambiguities in the title, clearly define intended users and include date or year of publication. Removing ambiguities in the title, defining intended users and inclusion of date or year of publication are not highly technical issue and should not take a lot of time.

In the meantime DGHS can organize a national consultative workshop involving representatives of MOHFW, DGHS, post graduate training institutes, MedCH, national professional societies, development partners, special health projects and selected NGOs having clinical service provision, epidemiologist, and statistician and public health specialist. The structure and format of the national consultative workshop should be decided by DGHS in consultation with WHO. The aim of the consultative workshop would be to generate a consensus on selection criteria of a disease for which a guideline is required, determining minimum requirement for the development of any guidelines, protocols, manuals and standard guideline to review new guideline developed, approval procedure, ensuring availability and use of guidelines, protocols and manuals including resource requirement.

Medium term: Though top 10 diseases have low public health importance but are currently managed as inpatient within existing health service delivery infrastructure of MOHFW. The process of developing additional guidelines for those top 10 diseases can begin immediately. While the development of additional guidelines for those top 10 diseases continues, DGHS in consultation with MOHFW should consider reconstituting the existing national technical committee charged with responsibility of formulating policy for guideline development and providing approval of guidelines with representation from national professional societies, NGOs and private sector, epidemiologist, statistician and public health specialist with social science background to strengthen its capacity. The involvement and recognition of national professional societies in newly reconstituted national technical committee is likely to minimize repulsive tendency of the clinicians to modify their personal styles of clinical

management and to promote consistent clinical decisions. The newly reconstituted national technical committee should provide approval of additional guidelines for those top 10 diseases. The benefit of having a newly reconstituted national technical committee and approving guidelines for those top 10 diseases is likely to make existence of national technical committee known to almost all stakeholders. The newly reconstituted national technical committee should consider taking up preparing guidelines for next top 10 diseases.

Long term: The WHO having advantage of greater access opportunity to national policy makers can play pivotal role in facilitation, setting commissions for conducting systematic review and professional editing for newly developed guidelines. The newly reconstituted national technical committee should be in continuous dialogue with WHO, national and international professional societies to remain abreast of evidence based medicine, drug resistance, new treatment regimen, rational drug use, review priority diseases and need for guidelines and growth in service offering capacity in the public sector and private sector national technical committee can institute a system of selective monitoring of the use of approved guidelines which would ultimately promote consistent decision in good quality health care practice, ensuring rational prescription of drugs to protect the health of the patients and reduce wastage.

SSK benefit package: There was a limited opportunity to identify guidelines requiring review. Removing ambiguities in existing guidelines and then obtaining formal approval of for corrected version of existing guideline for the purpose of SBP is likely to be cumbersome. Good quality health care practice, rational prescription of drugs to protect the health of the patients and reducing wastage cannot be institutionalized just by updating the existing guideline. In order to make SSK benefit package operational, greater understanding is required about the package offered, elements of commonalties, barriers and methods used to overcome those barriers by other special health projects because existing guidelines were used by the special health projects would be worth reviewing and likely to be useful in determining and implementing the SBP benefit package. The experience gathered from voucher scheme under DSF should also be revisited and examined critically because the DSF involved some kind of claim reimbursement and implemented adapting existing guideline in the current level of service offering capacity of the health service delivery infrastructure of DGHS.

There is a need to develop an operational definition of inpatient care and component of SBP coverage must be spelled out in the operational guideline. The issue of patients referred from primary care level to secondary level and presenting directly in the emergency and then admitted as inpatient in the secondary level must be clearly understood by the users in the operational guideline for piloting. From the perspective of SSK benefit package a minimum definition of quality of care for the purpose of supporting SSK piloting is needed. Establishing a DRG similar to the countries Asian and African regions can be considered for ensuring quality health care practice and rational prescription of drugs to protect the health of the patients and reduce wastage. Trained clinicians and other cadre of health care providers must not be transferred avoiding any hindrance during and until SSK piloting becomes fully operational.

Annexure including presentation of all data collected and summary of qualitative data by project

.

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APPENDIX A: CHECKLISTS

(Checklist-1) Tungipara and Gopalganj

DMA, a consulting firm has been recruited to assist Health Economics Unit of MOHFW and GFA consulting firm from Germany in assessing availability of Clinical and Therapeutic guidelines currently used in Upazila Health Complex, Tungipara and Gopalganj District Hospital. Subject to your agreement, we would like to ask you few questions. This will take only couple of minutes. Shall we begin?

Name of facility visited Date visited:	Upazila Health Complex (UzHC), Tungipara District Hospital (DH), Gopalganj
Name and position of the person interviewed	Interviewee name: Designation: Contact number: Email address:

1. Clinical service providers in position

Tungipara UHC		**Gopalganj DH**	
Designation	No	Designation	No

3. Clinical and Therapeutic guidelines currently available (Photocopy first few pages)

Sl no	**Tungipara UHC**	Year Published	**Gopalganj DH**	Year Published
a				
b				
c				
d				
e				

4.Name of wall pasted guidelines currently available (Write exact title developed and approved by whom including year of publication)

a		
b		
c		
d		
e		

5. Please name any diseases for which you desired to have a guideline?

_____
_____

6. Did you check with any of other sources to get a copy of the desired guidelines?

- Yes
- No
- No such guideline available

7. If yes, please tell me:
7a.Name of the guideline:
7b.Who published that guideline:
7c. When and who approved that guideline:

8. Comments and reported Practice, Usefulness, Difficulty and Areas to be included in the existing Clinical and Therapeutic guidelines.

Name of Clinical and Therapeutic guidelines:
(Use separate sheet for each of the listed guidelines)

8a.Did you or any of your colleagues currently working in this facility receive any training on use of these guidelines?

- Yes
- No

8b.If yes, when did you receive this training?

- Last year
- 2 years back
- 3 years back
- More than 3 years back
- Can't remember

9. Reported Practice:

9a.Do you use this guideline?

- Yes
- No

9b.If yes, how often do you need to use this guideline?

- As on when needed
- Depends on availability of drugs
- Sometimes
- Once in a while
- Never needed

9c.When this guideline was last used?

- Never used
- Always used
- 3 months back
- 6 month back
- One year back
- More than one year back
- Can't remember

9d.If no, why you do not use the guideline?

- Me or no other clinician receive training on guideline use
- Trained clinician transferred
- Required equipment is not available
- Required equipment is out of order
- Lack of supplies
- Not suitable in our setting
- Other reasons (Specify)

10. Reported Usefulness:

10a.Do you find this guideline useful?

- Yes
- No

10b.If yes, why do you think this guideline is useful?

- Cases can be defined correctly
- Correct diagnostic can be done
- Right drugs can be decided
- Consistent decision making
- Promote common understanding among support staff

- Referral to secondary/tertiary care is specified
- Others (specify)

10c.If no, why do you think this guideline is not useful?

- Outdated
- Lack of diagnostic support
- Lack of supply of essential drugs
- Unavailability of relevant specialist
- Others

11. Reported Difficulty in use:

- Difficult text in the content
- Complex term in Bangla in the content
- Use of English term
- Absence of information on management of conditions encountered
- Not possible in our setting
- Lack of trained support staff
- Others (Specify)

12. Reported Areas to be included:

- Rephrase the text in the content
- Include information on management of conditions encountered
- Availability of trained support staff
- Others (Specify)

13. Operational referral mechanism

13a. Where do you refer the cases that cannot be managed here?

- Gopalganj District hospital
- Gopalganj Medical College Hospital
- Gopalganj Private Clinic/Hospital)
- Tungipara (Private Clinic/Hospital)
- Tertiary level /Other specialized hospital
- Don't name any specific facility just ask attendant to take to higher level
- Not referred yet

14. Reported name of top ten diseases treated during last month				
Sl no	**Name of diseases**	**No**	**Name of diseases**	**No**
a				
b				
c				
d				
e				
f				
g				
h				
i				
J				
k	All others			
Total				

15. List at least 5 diseases most frequently referred to elsewhere in last one year	
January-March 2011 • Name of diseases referred • Reason for referral	
April- June '2011 • Name of diseases referred • Reason for referral	
July –September' 2011	

• Name of diseases referred • Reason for Referral	
October-December'2011 • Name of diseases referred • Reason for referral	

Many thanks for your time.

(Checklist-2) Key questions about Clinical and Therapeutic guideline used for all level of service delivery in special health service delivery projects.

DMA, a consulting firm has been recruited to assist Health Economics Unit of MOHFW and GFA consulting firm from Germany in assessing availability of Clinical and Therapeutic guidelines currently used by Grameeen Kalyan Project. Subject to your agreement, we would like to ask you few questions. This will take only couple of minutes. Shall we begin?

1. Name of special health project:
2. Location of project area and duration of operation:
3. Name and position of the informant:
4. Education:
5. Date of joining with this project :
6. Contact number:
7. Email address:
8. Date interviewed:

9.Clinical service providers deployed	
Designation	Qualification

10. Operational description of insurance package:
10a.Total number of insured beneficiaries by gender:
10b.Premium payment rate and frequency
10c.Mode of payment:
10d.Diseases covered:
10e.Criteria used for:
i. Children
ii. Ultra poor
iii. Poor
iv. Elderly people

11. Outpatient service delivery infrastructure:	12. Inpatient service delivery infrastructure:

11.Name of top ten diseases treated during last month:

Sl no		No
a		
b		
c		
d		
e		
f		
g		
h		
i		
j		

12.	**Clinical and Therapeutic guidelines currently available (Photocopy first few pages)**	Year Published
a		
b		
c		
d		
e		

13.Name of Wall pasted guidelines/Flip chart/ Pictorials currently available (Write exact title including year of publication, if available)		Year Published
a		
b		
c		
d		
e		

14. Referral system operational

Where do you refer the cases that cannot be managed at your place?

- District hospital
- Medical College Hospital
- Local Private Clinic/Hospital
- Tertiary level / Other specialized hospital
- Not referred yet

15. Monthly report sent to
    - UHC
    - MIS-Health
    - DGHS
16. Do seek any assistance from DGHS at local level?
    - Yes
    - No
17. If yes, what kind of assistance?

Comments and suggestion on applicability of Grameen Kalyan model in the national system:

Documents to be collected:

1. Last monthly report
2. Last annual report
3. Project document

(**Checklist-3)** Key questions for Line Directors about Clinical and Therapeutic guideline used for all level of service delivery

DMA, a consulting firm has been recruited to assist Health Economics Unit of MOHFW and GFA consulting firm from Germany in assessing availability of Clinical and Therapeutic guidelines currently used nationally. Subject to your agreement, we would like to ask you few questions. This will take only couple of minutes. Shall we begin?

A. Detail Profile
1. Name of line director: 2. Education: 3. Date of joining with this program: 4. Contact number: 5. Email address: 6. Date interviewed:
7. Name of Clinical and Therapeutic guidelines currently used in the program:
8. When this was updated last:
B. Description of steps followed:
1. How decision to update is made?
2. Who proposed update requirement to whom?
3. Which Clinical and Therapeutic guideline was used as standard for update?
4. What was the criterion in selecting the standard?
5. What type of clinician/specialist did the review?
6. How the clinician/specialist was selected?
7. How much time was needed by the selected clinician/specialist to complete the review?
8. How revised Clinical and Therapeutic guideline is placed before national core committee for approval?
9. Number of days required by national core committee to approve the guideline?
10. How many days did it take in getting a final printed version?
11. What were the steps followed to complete the distribution of approved guideline?
12. Where the users of approved guideline were trained? National level Medical college hospital District level
13. How many days of training was it?
14. What kind of monitoring system practiced to ensure approved guideline is used?

Format-1

Disease Profile (1-155)	Title of the national guideline (Hard/ Soft Copy)	Year of last revision	User Type	Facility Type

Format-2

List of high prevalent diseases	Title of the national guideline		WHO standard guideline				
		Year Revised	Case definition	Diagnosis	Treatment Regime	National plan	Year Published

Format-3

Listed Subject	Title of the guidelines	International guidelines/Standard used

APPENDIX B: LIST OF GUIDELINES

List of Guidelines/Protocols Gathered

Serial no.	Topic	Name of guideline/protocol	Year of publication	Published by	Any update	Copy available
1.	Arsenicosis	A Field guide for Detection, Management Surveillance of Arsenicosis cases	2005	WHO		Yes (H)
2.	Arsenicosis	Training manual for nurses and health workers on Detection of Arsenicosis patient and their treatment management (in Bangla)	2008	DGHS		Yes (H)
3.	Anthrax	National Guideline for Management and prevention of Human Anthrax	2010	DGHS		Yes (H)
4.	Asthma	National Guidelines of Asthma and C OPD, 4th edition	2010	Asthma Association, Bangladesh		Yes (H)
5.	Bronchial Asthma	National Guidelines Asthma, Bronchitis, COPD, 3rd edition	2005	Asthma Association, Bangladesh	Yes	Yes (H)
6.	Bleeding	Acute bleeding	2012	DGHS	Draft	Yes (H)
7.	Burn management	National Guideline for Burn Management	2010	DGHS	-	Yes (H)
8.	Cancer	Genitourinary Cancer Guideline	-	BSMMU		No
9.	Casualty	Guideline for Mass Casualty Management Drill	2010	DGHS		Yes (H)
10.	Chest pain	Acute chest pain management protocol	2012	DGHS	Draft	Yes (H)
11.	Child health	Integrated management of childhood illness (IMCI), introduction	2010	MOHFW		Yes (S)
12.	Do	IMCI, Assess and classify the sick child age 2 months up to 5 years	2010	MOHFW		Do
13.	Do	IMCI, Identify treatment	2010	MOHFW		Do
14.	Do	IMCI, Treat the child	2010	MOHFW		Do
15.	Do	IMCI, Management of the sick young infant aged up to 2 months	2010	MOHFW		Do
16.	Do	IMCI, Counsel the mother	2010	MOHFW		Do
17.	Do	Essential Newborn care	-	DGHS	No	Do
18.	Do	National Neonatal Health Strategy and Guidelines for Bangladesh	2009	MOHFW	No	Do
19.	Do	Infant and Young Child Feeding	2009	WHO	-	Do
20.	Do	Integrated management of childhood illness	-	MOHFW	-	Do
21.	Do	National Guideline for Management of Severely Malnourished Children in Bangladesh	2008	MOHFW		Yes (S)
22.	Coronary care	Acute coronary syndrome management procedure and checklist	-	DGHS	No	Yes (S)
23.	Dengue	National Guidelines for Clinical Management of Dengue Syndrome	2009	MOHFW		Yes (H)

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24.	Do	Dengue Guideline, Diagnosis, Prevention and Control	2009	WHO		Yes (S)
25.	Do	Guidelines for treatment of Dengue Fever/Dengue Hemorrhagic Fever in small hospitals	1999	WHO		Yes (S)
26.	Diabetes Mellitus	Diabetes mellitus clinical management	2012	DGHS	Draft	Yes (H)
27.	Do	Clinical Management of Diabetes Mellitus, Principles and Guidelines	2012	Bangladesh Diabetic Society		Yes (H)
28.	Do	Guidelines for care of type 2 Diabetes Mellitus in Bangladesh	2003	BIRDEM and WHO		Yes (S)
29.	Diarrhoea	Diarrhhoea treatment guidelines including ORS and zinc supplementation for clinic-based healthcare workers	2005	WHO		Yes (S)
30.	Do	The treatment of Diarrhoea, A manual for Physicians and other senior health workers	2005	WHO		Yes (S)
31.	Do	Clinical management of acute diarrhoea	2004	WHO/ UNICEF		Yes (S)
32.	Emergency	Guideline on emergency health care	2008	MOHFW and WHO		Yes (H)
33.	EPI	Guideline and Procedure for the monitoring of Management of Adverse Effect Following Immunization (AEFI) at national and periphery level	2012	DGHS		
34.	Do	EPI guideline, Chapter -7	2010	DGHS		
35.	Fever	Acute Febrile Illness, Management Protocol	2012	DGHS	Draft	
36.	Filariasis	National Filariasis Elimination Program	-	DGHS		Yes (H)
37.	First Aid	First Aid Training manual	2011	CIPRB and IDRC-B		Yes (H)
38.	Family Planning	Trainee's handout, Workshop on Counseling, IUD and infection prevention (Bangla)	2007	DGHS		No
39.	Do	Clinical Management and RTI/STI case management-Training manual for Medical technologist (Laboratory)	2001	MOHFW		Yes (H)
40.	Do	Birth Control Manual (Janmo Niontron) (Bangla)	2000	MOHFW		No
41.	Guideline development	WHO Handbook for Guideline Development	2008	WHO		Yes (S)
42.	Guideline development	Guideline for WHO Guideline	2003	WHO		Yes (S)
43.	HIV/AIDS	National Guideline of Antiretroviral therapy Bangladesh	2011	National AIDS/STD program, DGHS		Yes (S)
44.	Do	Development of Nutritional Guideline for PLHA	2011	MOHFW		Yes (S)
45.	Do	WHO recommendations on the management of diarrhea and pneumonia in HIV-infected infants and children	2010	WHO		
46.	Do	PPTCT guideline	2008	MOHFW		
47.	Do	Universal precaution of HIV/AIDS on health	-	MOHFW		Yes (H)

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		services				
48.	Hypertension	Protocol management of hypertension	2012	DGHS	Draft	
49.	Human Papilloma virus	Human Papilloma Virus and related Cancers. Summary Report Update.	2010	WHO		
50.	Injection	WHO Best Practices for Injections and related procedures toolkit	2010	WHO		
51.	Influenza	National Guideline for management of Influenza	2012	DGHS	Draft	
52.	Do	Standard Operating Procedure ((SOP), Isolation Unit (Influenza and Infectious Diseases)	2012	DGHS	Draft	
53.	Do	National Guideline for clinical management of pandemic Influenza A (H1N1)	2009	DGHS		
54.	Do	Guidelines for management of Avian Influenza cases	2007	DGHS		
55.	Jaundice	Clinical Management of clinical Jaundice	2012	DGHS	Draft	
56.	Kala-azar	National Guideline for diagnosis and treatment of Kala-azar & PKDL	2010	MOHFW		
57.	Do	Training module on Diagnosis of Kala-azar and Post Kala-azar Dermal Leishmaniasis	2009	MOHFW		
58.	Do	Kala-azar elimination in the South-East Asia Region: Training Module	2008	WHO		
59.	Do	Regional Strategic Framework for elimination of Kala-azar from the South-EAst Asia Region (2005-2015)	2005	WHO		
60.	Leprosy	Global strategy for further reducing the Leprosy burden and sustaining Leprosy Control activities (2006-2010)	2006	WHO		
61.	Do	National Guideline and Technical manual on Leprosy, 3rd edition	2005	MOHFW		
62.	Malaria	Training manual on Malaria disease diagnosis, treatment, control and prevention	2011	DGHS		
63.	Do	Diagnosis and management of severe malaria (Early Diagnosis and Prompt Treatment)	2010	MOHFW		
64.	Do	Guideline for treatment of malaria	2010	WHO	2nd edition	
65.	Do	Revised Malaria Treatment Regimen	2009	MOHFW		
66.	Maternal Health	WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia. Evidence base	2011	WHO		
67.	Do	WHO recommendation for Induction of labor	2011	WHO		
68.	Do	WHO Guideline for the management of postpartum hemorrhage and retained placenta	2009	WHO	Revie wed	
69.	Do	Active management of 3rd stage of labor (Bangla)	2008	MOHFW	Revie wed	
70.	Do	Assessment of the Availability of routine use of Active Management of the 3rd stage of labor	2008	MOHFW		
71.	Do	Managing complications in pregnancy and childbirth, A guide for midwives and doctors	2007	WHO		
72.	Do	Clinical Care and Treatment Guideline for postpartum hemorrhage	2003	WHO		Yes (S)

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73.	Do	Technical Standard and Service Delivery Protocol for EmOC	2002	National Integrated Population and Health Program (NIPHP)	-	No
74.	Do	Clinical Practice Guide Checklist by NIPHP for Safe Delivery Training Program.	1990	MOHFW		No
75.	Mental Health	Pharmacological Treatment of Mental Disorders in primary health care	2009	WHO		Yes (H)
76.	Pain	Acute abdominal pain	2012	DGHS	Draft	
77.	Do	WHO treatment guideline on chronic non-malignant pain in adults	2008	WHO		
78.	Poisoning	Management of poisoning	2012	DGHS	Draft	
79.	Do	Training Manual on Management of Poisoning Guideline	2007	Dhaka Medical College and WHO	No	
80.	Do	Training Manual on Management of poisoning	2007	DGHS	No	
81.	Respiratory distress	Acute respiratory distress	2012	DHGS	Draft	Yes (H)
82.	Reproductive Health	Clinical Contraception, HIV/AIDS and RTI/STI case management. Training Methodology and Capacity development through training for the Reproductive Health Programme.	2003	DGHS, MOHFW	3rd edition	
83.	Do	Clinical Contraception, HIV/AIDS and RTI/STI case management. Trainers' manual, Medical Technologist (Laboratory), Training Methodology and Capacity development through training for the Reproductive Health Programme.	2003	DGHS,MO HFW		Yes (H)
84.	Do	Elimination of Rabies in Bangladesh. Strategy Plan	2010	MOHFW		
85.	Rabies	National Guideline for Rabies Prophylaxis and Intra-Dermal Application of cell culture Rabies vaccine	2010	DGHS	No	Yes (S)
86.	Services	Operating Mnual for Pathology Unit	2001	MCHTI, DGFP	No	Ye s (H)
87.	Snake bite	Guideline for the management of snake-bites	2010	WHO		Yes (S)
88.	Do	Guidelines for the clinical management of snake bites in the South-East Asia region	2005	WHO		Yes (S)
89.	Do	National Guideline for management of snake bite	-	DGHS		
90.	STI	National Guidelines for management of Sexually Transmitted Infections	2006	National AIDS/STD Programme, DGHS	No	Yes (H)
91.	Stroke	Stroke management guideline	2008	DGHS	No	Yes (S)

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92.	Surgery	Guideline on Basic Surgical Skills		BCPS		No
93.	TB	National Guidelines and operational manual for TB control	2012	National Tuberculosis Control Programme, DGHS, MOHFW	4th edition	Yes (H)
94.	Do	Guideline for intensified tuberculosis case finding and ionized preventive therapy for people living with HIV in resource-constrained settings	2011	WHO		
95.	Do	Operational manual for the management of Multi Drug Resistant TB (MDR TB)	2009	DGHS	1st edition	Yes (H)
96.	Do	Treatment of Tuberculosis	2009	WHO	4th edition	Yes (S)
97.	Do	Management of MDR-TB. A Field Guide	2009	WHO		Yes (S)
98.	Do	Tuberculosis control programme in Bangladesh, Technical outline	1999	NTP, DGHS		Yes (H)
99.	Do	National Guideline for Tuberculosis control	1996	Tuberculosis and Leprosy Control Services, DGHS, MOHFW	2nd Edition	Yes (H)
100.	Typhoid /Enteric Fever	Background document: The diagnosis, treatment and prevention of Typhoid fever	2003	WHO		Yes (S)
101.	Unconscious-ness	Management Protocol of Unconscious patient	2012	DGHS	Draft	Yes (H)

H- Denotes hard copy
S - Denotes soft copy