

Management of Hypertension and Diabetes Mellitus at Primary Health Care Settings in Pakistan; Clinician's Perspective

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INTRODUCTION

It is very important to maintain optimal nutritional status at any stage of life, so as to prevent some chronic diseases, reduced frequency of episodes of illness, less hospital visits, fewer complications and a high survival rate¹. Over 80% of CVD deaths take place in low- and middle-income countries². Despite convincing evidence that lowering of blood pressure decreases cardiovascular morbidity and mortality, the control of hypertension has been poor in developing countries due to a multitude of reasons. According to National Health Survey Pakistan (NHSP) hypertension was shown to affect 18% of adults aged >15 years and around 33% of adults above 45 years³. In Pakistan there is a lack of adequate data on the NCD disease burden as well as the risk factors involved. The prevalence of hypertension and diabetes mellitus in rural areas of Pakistan is in range of 4.5-22%⁴ and about 17.5%⁵ respectively. In rural areas, the availability and quality of the first level care public facilities is not adequate. There is significant costs involved in terms of lost of productive time, lost opportunities, impaired quality of life and money spend on the health care. Much of the burden, however, can be prevented by effective disease management strategies that include initiating programs aiming to prevent, as well as manage the targeted nutrition-related chronic diseases at the primary health care level.

MATERIALS AND METHODS

A convenience sample of 16 primary health care facilities both public and private of rural areas in Pakistan was included in the study. Methods of the study were interviews of health care practitioners about management of hypertension and type-2 diabetes mellitus and observation of selected services. The study was conducted in January 2013. Interviews were transcribed verbatim in English. Data was organized by themes.

RESULTS

Tools and procedure for clinical assessment done by care providers were identified. Care providers use their medical knowledge for suspecting and assessing the patients and perform cardiovascular system examination routinely with no available standard

guidelines. In health care facilities, the availability and operational status of medical equipments and furniture were also assessed. Blood pressure apparatus (mercury), stethoscope and weighing machine were available and operational. Fundoscope was not available and doctors had no proper training in doing fundoscopy.

There was no specific guideline available for investigation and diagnosis. Tests like random blood sugar, lipid profile, renal function tests and USG abdomen were done in general routine. The clinical setups do not have a laboratory facility that's why tests are done from private labs.

No proper guidelines for prescribing the medicine were available or consulted and instead personal medical knowledge is used for prescribing medicines. Generally in case of hypertension, care providers prescribe Angiotensin converting enzyme ACE inhibitors as first line therapy and for Diabetes mellitus doctors usually start with metformin. Patient compliance was best with low cost drugs. Side effects are not generally reported. Current health care delivery system in Pakistan lacks life style counseling. Paramedics and doctors are not trained in delivering proper counseling sessions. There is no proper or formal follow up protocol currently practiced in health care delivery system. No specified regular intervals for follow up are practiced. No formal patient card and chronic disease register is available at health care facilities. Standard Health Management Information System (HMIS) mechanism for recording and reporting is being practiced. Referrals are generally made to District Head Quarter (DHQ) Hospitals for uncontrolled hypertension and type-2 diabetes mellitus. Formal feedback mechanism does not exist in the system.

DISCUSSION

These managerial and clinical draw backs are worsening the situation. Despite the fact that government is trying to improve the health care service delivery, CVD burden is increasing at alarming rate. In resource constraint settings like Pakistan focused and cost effective strategies should be implemented. Collaboration of government and private sector can eliminate the gaps in service delivery. Efforts should be put in every step from case registration till effective management. Proper identification of patient,

uninterrupted drug supply at public health facility, where medicines are free for patients but due to non availability of drugs patients have to buy on their own, so government should ensure hypertensive and hypoglycemic drug along with preventive drugs e.g. aspirin, statin etc. Life style counseling is the back bone of CVD management. This context analysis explains the barriers in proper management of hypertension and diabetes mellitus yet more extensive research is required to develop protocol for CVD management in low resource health system.

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