Compliance with Antibiotic Prescription\Medication and Appointment

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**Background:** At early 1940s; Antibiotics have become an essential and frequently used weapon in the physician’s armamentarium but their efficacy depends on their being taken exactly as prescribed. Failure to do so can lead to ineffective treatment, and the growth of antibiotic resistant strains of bacteria. Although studies of compliance in world began many years ago, the first article on compliance with health care was published in 1943 (Bisher, M. A 1943). In Saudi Arabia, due to many reasons such as national shortage of health manpower, it has received scant attention as a part national primary health care strategy at late 1980s. Despite that the first Saudi article was 1986 (Babiker, M. A 1986), the research in "Compliance with antibiotics prescription and appointment" is still not widespread enough at national level compare to antibiotics hazards. Therefore, this study is carried out as part of pharmacy health education course.

**Aim:** Shed some light on the particular aspects of compliance with antibiotics prescriptions and appointment, and act as forerunner for future clinical health education researches and compliance studies.

**Methods:** Clinical based Health Education Structured Interviewed Questionnaires, All the 60 patients with antibiotics prescriptions in period of the study (22 Childs with their parents and 38 adults ) were interviewed face to face in a private room within the general clinical areas during first visit. Their answers were recorded on a standard questionnaire (A).The researcher were followed patients appointments, and re-interviewed them in the second visit (follow-up 3-5 days). At the second visit the amount of prescribed antibiotics tablets and syrups remaining from the initial prescriptions was recorded in standard questionnaire (B).

**Results:** The overall compliance was 43%,, adults were more likely to comply than children, and women more likely to comply than men.

**Conclusions:** In addition the result above, various factors affecting compliance are discovered, and discussed and recommendation made on how compliance might be improved.

Signaling pathways for cardiac hypertrophy

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Cardiac hypertrophy is one of the main ways in which cardiomyocytes respond to mechanical and neurohormonal stimuli. It enables myocytes to increase their work output, which improves cardiac pump function. Although cardiac hypertrophy may initially represent an adaptive response of the myocardium, ultimately, it often progresses to ventricular dilatation and heart failure which is one of the leading causes of mortality in the western world. A number of signaling modulators that influence gene expression, apoptosis, cytokine release and growth factor signaling, etc. are known to regulate heart. By using genetic and cellular models of cardiac hypertrophy it has been proved that pathological hypertrophy can be prevented or reversed. This finding has promoted an enormous drive to identify novel and specific regulators of hypertrophy. In this review, we have discussed the various molecular signal transduction pathways and the regulators of hypertrophic response which includes calcineurin, cGMP, NFAT, natriuretic peptides, histone deacetylase, IL-6 cytokine family, Gq/G11 signaling, PI3K, MAPK pathways, Na/H exchanger, RAS, polypeptide growth factors, ANF, NO, TNF-Alpha, PPAR and JAK/STAT pathway, microRNA, Cardiac angiogenesis and gene mutations in adult heart. Augmented knowledge of these signaling pathways and their interactions may potentially be translated into pharmacological therapies for the treatment of various cardiac diseases that are adversely affected by hypertrophy. The purpose of this review is to provide the current knowledge about the molecular pathogenesis of cardiac hypertrophy, with special emphasis on novel researches and investigations.

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