CHAPTER – ONE

INTRODUCTION

1.1 General background

Language is the most widely used means of communication among people. It is the medium for conveying messages, thoughts, feelings and emotions of human beings. It is the distinctive property of mankind because of which human beings seem to be extraordinary and superior to all the species on this earth in any respect. Oxford Advanced Learner's Dictionary (2000, p. 721) defines language as "The use by humans of a system of sounds and words to communicate." For Corder (1973, p. 20), "Language is a concrete object which can be handled physically like a tool." To Block and Trager (1942, p. 5), "A language is a system of arbitrary vocal symbols by means of which a social group cooperates." Richards et al. (1985, p. 31) write, "Language is the system of human communication by means of a structural arrangement of sound to form larger units e.g. morpheme, words, sentences." Similarly, for Wardhaugh (1977, p. 3), "Language is system of arbitrary vocal symbol used for human communication." In Todd's word (1987, p. 6), "Language is a set of signals by which we communicate."

The definitions above make it clear that language is the unique possession of human beings. It is used to communicate with one another. In the process of communication one perceives the clear picture of the whole world through the language. It is a means which helps us to think, interpret, perceive and express about real world. Most of the activities of the world are carried out through language, e.g. transmission of human

civilization, thoughts, literature, political or diplomatic activities, and human achievement and so on. In this context Sapir (1978, p. 8) argues, " Language is primarily human and non-instinctive method of communicating ideas, emotions and desires by means of voluntarily produced symbols." In this modern age, English has become the accepted international language of technology, commerce and created a new generation of learners who know specifically why they were learning it. Students of medicine or nuclear physics or other scientific disciplines need to be able to read articles and textbooks about their discipline in English.

1.1.1 Linguistics

Linguistics is the theoretical study of language and concerns with what language is. It gives us a framework to describe and improve language in a systematic way with reference to the knowledge about language. Todd (1987, p. 5) defines linguistics as 'The scientific study of language.' As an academic discipline, the development of this subject has been relatively recent and rapid, having become particularly widely known and taught in the 1960s. Linguistics makes the language knowledge-oriented. It gives the descriptions of the system and sub-system of language. Good descriptions of language imply a definite attitude towards a language. It provides metalanguage like noun, verb and adjective. Different methods of language teaching like audio-lingual, bilingual, functional, implicit and explicit method are the by-products of linguistics.

The overlapping interest of linguistics and other disciplines has led to the setting up of new branches of the subject in both pure and applied

contexts such as anthropological linguistics, biolinguistics, clinical linguistics, computational linguistics, developmental linguistics, critical linguistics, educational linguistics, mathematical linguistics, ecolinguistics, neurolinguistics, psycholinguistics and sociolinguistics. When the findings, methods or theoretical principles are applied and studied linguistically, it is called applied linguistics.

1.1.1.1 Varieties of Linguistic Codes

A 'Code' generally refers to a language. While talking to each other people shift from one code to another, which is called code switching. For Wardhaugh (1986, p. 86), "Code is a particular dialect or language, one chooses to use on any occasion." Code is a system used for communication between two or more parties. Code is thus a cover term which may denote a dialect, register or a language. However, it generally refers to language. When we open our mouth, we must choose a particular language, dialects, style, register or variety – that is a particular code.

Dialect is the variation in the use of language according to place, time and group of people. Language can show variability according to the social and geographical setting. Dialects betray the personality of the speaker. We know something about one's social and geographical background that is, we guess what part of the country they belong to, what social status they are enjoying by the kind of language they use, language of this sort is known as dialect. Language variation in a geographical dimension is simply called geographical dialect and language variation in social dimension is known as social dialect or sociolect.

Idiolect refers to the linguistic system of an individual speaker, i.e. one's personal dialect. So dialect is the sum total of a large number of idiolects. As Hockett (1916, p. 322) mentions, "Generally speaking the totally of speech habits of a single person at a given time constitutes an idiolect." A person's idiolect can be noticed in his/her literary writing and speech, which distinguishes one individual from other in voice quality and pitch as well. Idiolect is the individual's personal variety of the community language system and that displays a particular variety at a given time.

Register is another variety of language which may be based either on situation or purpose or topic. Register is also distinguished according to the substance or medium the language uses, and according to this there may be either spoken or written registers. The same speaker uses different linguistic varieties in different situations and for different purposes.

a. Register

The term 'Register' is widely used in sociolinguistics. Register refers to that variety of language which varies according to the situation we are talking in, for example, formal/informal register. We can also identify the speaker by his register; for example, if he is a professor or lawyer, or a doctor by observing his language. Registers are set of language items associated with discrete occupational or social groups. Crystal (2003, p. 393) defines, "The variety of language defined according to its use in social situations, e.g. a register or scientific, religious, formal English." As Ferguson (1994, p. 20) puts, "People participating in recurrent communication situations tend to develop similar vocabularies, similar

feature of intonation and characteristic bits of syntax and phonology that they use in these situation."

Ferguson (1994) adds that:

> Its special terms for recurrent objects and events and formulaic sequences or 'routines' seem to facilitate speedy communication; other features apparently serve to mark the register, establish feelings of rapport and score other purposes similar to the accommodation that influences dialect formation (p. 20).

Hudson (1999, p. 46) classified three types of register:

Field Based Register: - Field based register is concerned with the purpose and subject matter of the communication and that is the question about why and what? It is different in terms of vocabulary, e.g. language of science, language of medicine, literature, linguistics, mass communication, language teaching are taken as field based register.

Mode-Based Register: - It is reflected through the mediums by which communication takes place notably by speech or variety and it is the question of how? How communication takes place either in speech or in writing. Contracted forms are merely used in spoken language than written medium. Thus spoken and written varieties of language come under mode-based register.

Tenor-Based Register: - Tenor-based registers are the varieties of language which depend on the relation between participants. It also covers the amount of intimacy and formality of language.

Thus, registers are commonly identified by certain phonological variants, vocabulary, idioms and other expressions that are associated with occupational or socioeconomic groups.

b. English for specific purposes (ESP)

At first, ‘language for special purposes’ (i.e. LSP) has begun to appear more and more frequently in language teaching literature. Now many scholars and their followers use the term ‘English for Specific Purposes’ (i.e. ESP). It is thought that the former (i.e. LSP) is restricted language which, for many people, is only a small part of ESP. The latter one (i.e. ESP) focuses attention on the purpose of the learner and refers to the whole range of language resources. Mackay (1980, p. 6) states that, “ESP is generally used to refer to the teaching/learning of a foreign language for a clearly utilitarian purpose of which there is no doubt.” Thus, by ESP is meant the teaching of English, not as an end in itself but as an essential means to a clearly identifiable goal. Keer (1977), as cited in Holden (1977, p. 11) has clarified the areas of ESP with which it is concerned. The crucial word is ‘purpose’ for there is always a purpose behind language teaching. If we are to teach English for a special purpose, we have to consider the ways in which we hope to achieve the end. So, we have to design a syllabus that will meet the needs of the students and adopt our methodology in order to teach the necessary skills. Mackay and Mountford (1980), as cited in Robinson (1980, p. 6) suggest three kinds of purposes:

- Occupational requirements, e.g. civil airline pilots and so on.

- Vocational training programs, e.g. for hotel and catering staff, technical trader etc.
- Academic or professional study, e.g. engineering, medicine, law etc.

The first thing in ESP is time factor where the students will normally have a pressure to achieve the required level of linguistic competence in the minimum (given time). The students and teacher should be constantly aware of the purpose and they introduced relevant material into the course that is learner centered. Attention to the needs of the learner is constantly a key element in any ESP course. The student of ESP is usually studying in order to 'perform a role'. The attention of the student should be in successful performance in English rather than knowledge of the rules of general English. Each individual student has different needs and purposes which an ESP course should aim to satisfy. But a general English course tries to accomplish to perform its role in general regardless of its specific purposes. The age of ESP learners is another element which more people agree. For most of the people's concept the learner is an adult or near adult. Considering such facts the ESP course is designed for a reasonable number of students with identical or nearly identical needs and those needs should be satisfied and the course is limited or more specific according to their needs. The course can be determined as in the following ways:

- **Restriction:** only basic skills are included which are required by the learner's purposes.

- **Selection:** required vocabulary, grammar, language function are included.
- **Themes and topics:** only required themes, topics, situations are included.
- **Communicative needs:** only those communicative needs are included which are required by the learner's purposes.

In conclusion, an ESP course is purposeful and is aimed at the successful performance of occupational or educational roles. Any ESP course may differ from another in its selection of skills, topics, situations and functions and also language. It is likely to be of limited duration. Students are more often adults but not necessarily so, and may take part in their ESP course before embarking on their occupational or educational role. It is based on a regional analysis of students needs and should be 'tailor-made' (perfectly suited). They may be at any level of competence in the language: beginner, post beginner, intermediate etc. The students may already be competent in their occupation or discipline but may desire to perform their role in English as well as in their language.

c. The Medical Language

The language of medical sector is highly technical and it is difficult to grasp the medical concepts used in it. It is a register which is different from other fields. The students of medicine have to use language skills in their field. So they are required to develop specific language skills in their study. Students studying English at the institute of medicine have special need that is because they are required to know specific technical terms.

The medical language provides the examples of different concepts and the texts of medical language are not in fact as easy as they appear on the surface. The medical language requires practical language skills and the intention behind the choice of text for the medical language is to provide texts that present familiar information in a new way. Generally the specific terminologies, illustrations and unique way of presentations make the medical language different from the language used in other fields.

d. The Medical Journal

The medical journal concerns with scientifically based accurate, up to date information to the readers about topics and issues that concerns with exercise, stress, nutrition, weight management, intimate relationship, HIV infection, drugs, alcohol and multitude and others. It provides the examples of new and updated topics and includes recommendations for diet and physical activity, newly approved contraceptive methods, club drugs, stem cells, post-traumatic stress disorder, diabetes, emerging infections, alternative medicine.

John and Thornton (1966) write:

> To ensure continuity of interest there must be constant rejuvenation and restimulation, and in no place of modern activity is it so imperative that the scientific spirit should burn and shine like a sacred fire as in the field of medicine. The highest function of the medical journalist today is to introduce new currents of scientific ideas and to keep them in circulation (p. 215).

The first medical journal published in the US was a selection and translation from the Journal de Medécine Militaire, Paris and was published as ‘A Journal of the Practice of Medicine, Surgery and Pharmacy’ in the Military Hospitals of France. This was reviewed and digested by Joesph Brown in 1790. The earliest American Medical Journal was the quarterly Medical Repository published in July, 1797 from New York. This was edited by Edward Miller, Samual Latham, Mitchell and Elihu Hubbard Smith. In 1804 the journal ended after the publication of 23 volumes and it was followed by the Philadelphia Medical Museum, Philadelphia. Numerous other journals and periodicals followed this but most were short-lived. However, the ‘New England Journal of Medicine and Surgery’ first published at Boston in 1812. It was published weekly until 29 February 1828 to form the Weekly Boston Medical and Surgical Journal. This became the official organ of several New England Medical Societies and it was purchased by the Massachusetts Medical Society in 1921, which has maintained a high standard and continues as an outstanding publication with an international reputation.

1.1.2 Features to be Studied

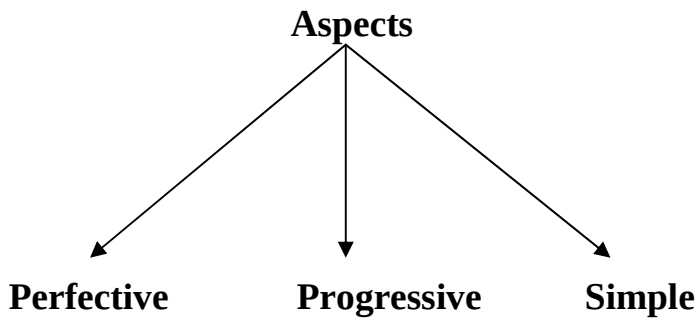
The aim of this research is to identify special use of different features of grammar in medical journal. These features are taken from Aarts and Aarts (1982) and Celce-Murcia and Larsen-Freeman (1999), which are described in the following sub-sections.

1.1.2.1 Tense

Tense denotes a verb form used to express a time relation. Morphologically, English has two tense system: the present tense, marked with the suffix '-s' in the third person singular as in 'She walks slowly' and the past tense, marked with the suffix '-ed' as in 'He walked slowly yesterday.' In this study, tense will be viewed from structural (or morphological) point of view.

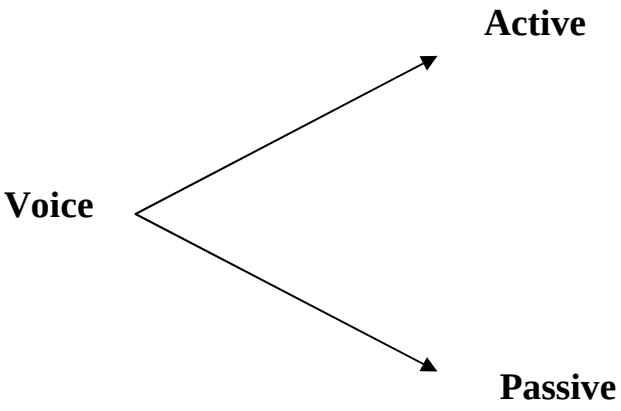
1.1.2.2 Aspects

Aspect is a grammatical category which refers to the manner in which a verbal form is experienced (e.g. whether it is considered completed or in progress). Generally, English is said to have two main aspects: perfective and progressive, in which perfective aspect refers that the action is completed and is marked by has/have/had + v^{en} and progressive aspect refers that the activity denoted by the verbs is in progress and thus, incomplete which is marked by be + ing. Similarly, the sentences which are neither in perfective nor in progressive aspect are considered to be in simple aspect. Thus, English aspects can be categorized as:



1.1.2.3 Voice

Voce refers to the way in which a language expresses the relationship between verb and the noun phrases which are associated with it. English has two types of voice. They are as follows:



In the active voice, the subject of a clause is most often the agent or doer of some action. It is more direct, more forceful and simpler. Due to this reason, active voice is used more often both in spoken and written discourse. Passive voice, on the other hand, is used when the person or thing receiving the action is more important than the person or thing doing or acting. Structurally, if a sentence includes be (is, am, are, was, were, has been, have been and so forth) + '-ed' participle of a transitive verb, it is in passive construction, so such constructions are usually easy to spot.

1.1.2.4 Sentence Type

Sentence type refers to the types of the sentences according to its structural point of view. From this view sentences are of three types: simple, compound and complex sentence.

a. **Simple sentence:** A simple sentence can be defined as a sentence in which non of the functions is realized by a clause. In other words, a simple sentence does not contain an embedded sentence as realization of one of its functions. On the other hand, a simple sentence is an independent sentence which is capable of occurring on its own.

b. **Compound sentence:** A compound sentence consists of two or more clauses of equal grammatical importance and a coordinating conjunction connects the two clauses in to one sentence.

c. **Complex sentence:** It refers to a sentence having at least one independent clause and one or more dependent clauses linked by some subordinators.

1.1.2.5 Technical Words

Technical words are specific words or terms which are different from any other ordinary, day to day lexicon and their meaning sounds technical by usage. And these terms are known mainly by professionals. Technical words are of two kinds: abbreviated- which is form of a word, phrase that

is shorter than the full form and non-abbreviated- which is a full form of a technical word.

1.2 Review of the Related Literature

Several researchers have carried out their researches in various field of language use. But a very few research works have only been done about the analysis of language used in medical sector.

Pathak (1979) has carried out a research entitled 'An Investigation into the English for Specific Purposes Course for the Students of Medicine at Certificate Level.' He aimed to find out the relevance of the course to medical students, needs of medical students and to analyze the adequacy as well as to identify the problems concerned with the implementation of the course and concluded that ESP (English for Specific Purposes) was relevant in our country to teach English at certificate level. He also concluded that the objectives of the course were relevant and the course contents were useful to the students of medicine.

Tiwari (2007) has carried out a research on 'The Language Used in Economic Journals' to analyze the language used in the economic journals and to compare the language of both the natives and non-natives used in economic journals and found that complex sentences were maximally used in native texts, non-past tense was used frequently in native texts, active voice and simple aspect were mostly used in both texts and native texts were longer than non-native texts comparatively.

Atreya (2008) has carried out a research entitled 'English Used in Medicine Marketing' to find out the sentence patterns used in the

language of medicine marketing and the main language function used in medicine marketing and has found that many different sentence patterns were used in medicine marketing among them S – P – PC (A) has the highest frequency whereas S – P – SA (A) pattern was the least frequent pattern. He also found that language functions imparting and seeking factual information, expressing and finding out intellectual attitudes, expressing and finding out emotional attitudes, getting things done and socializing are used in general product detailing. Among them imparting and seeking factual information and socializing were the most frequent language functions whereas expressing and finding out intellectual attitudes and expressing and finding out emotional attitudes were the least used language functions.

Sapkota (2008) has carried out a research on 'Language Used in Human Rights Journals' to analyze the language used in human rights journals in terms of sentence types, tense, voice, aspect and to list out the vocabularies used in human rights journals in terms of word class and their frequencies, and found that complex sentences were used maximally in human rights journals. Past tense was highly used and passive voice has been used in majority in human rights journals. Similarly perfective aspect was maximally used in the text of human rights journals.

While comparing the findings of the language used in economic journals and human rights journals, we can find some similarities and differences. In case of tense, non-past tense is frequently used in native text of economic journals but past tense was highly used in human rights journals. Complex sentences were maximally used in both journals. Active voice and simple aspect were mostly used in economic journals

but passive voice and perfective aspect were maximally used in the texts of human rights journals.

Up to now a very few research works have been carried out in the Department of English Education on the language used in journals and no research work has been carried out on the language of medical journals. So, this is being undertaken as an attempt to study the language used in medical journals and again this study is a new endeavour and different from other studies.

1.3 Objectives of the Study

This study had the following objectives:

a. To find out the characteristic features of the language used in medical journal in terms of tense (past and non-past), aspect (progressive and perfective), voice (active and passive) and sentence type (simple, compound and complex).

b. To describe the language of those journals in terms of technical abbreviated and technical non-abbreviated words.

c. To provide some pedagogical implications.

1.4 Significance of the Study

Medical language is highly technical and it is difficult to grasp the medical concepts. So this study aims to give a general picture of the English language used in medical journals. The medical language provides the examples of different medical concepts. This type of research work helps specifically to those students, teachers as well as

other health workers who are involved in the field of medicine. The findings of such study will also be helpful to the course designers, teacher trainers and researchers who are directly or indirectly involved in the field of language teaching. It will be helpful in deciding certain topics to be included in different English text books. In the twenty-first century interdisciplinary study is very common. Thus, language learners have to be exposed to the registers of as many fields as possible. I hope this research will be helpful to some extent to facilitate the interdisciplinary course.

CHAPTER - TWO

METHODOLOGY

The researcher followed the following methodology procedures to find out reliable and effective conclusion.

2.1 Sources of Data

2.1.1 Secondary Sources of Data

To accomplish the intended goals, the researcher used and consulted only the secondary sources to collect the data. These sources were as follows:

a. 'Journal of Nepal Medical Association' (JNMA), bi-monthly published by Nepal Medical Association, from Nepal.

b. 'Journal of Institute of Medicine' (JIOM), bi-monthly published by Institute of Medicine, from Nepal.

c. 'Kathmandu University Medical Journal' (KUMJ), bi-monthly published by Kathmandu Medical College, from Nepal.

Similarly, the researcher consulted the materials found in the library like books, theses, journals, dictionaries and the other materials such as; John and Thronton (1966), Barron (1982) and Crystal (1997) which were related to the study.

2.2 Sampling Procedure

The researcher applied judgemental sampling procedure which is one of the non-probability sampling designs when the researcher attempted to study about language used in journals. For this research study the

researcher collected thirty texts from medical journals, ten from each of the three journals.

2.3 Tools for Data Collection

For this research, observation was the main tool for data collection. The checklist including different types of tense, aspect, voice, sentence type and technical words was prepared first. Then the researcher collected five volumes of each publication and then selected thirty texts taking two texts from each publication of the journals mentioned in 2.1.1. Then, he read and re-read these texts to get the required information for the study.

2.4 Process of Data Collection

The following steps were followed for data collection:

a. The researcher collected the above mentioned journals then he observed the thirty texts (ten from each journal) purposively to get the required information.

b. The researcher read and re-read the text of these journals to find out the required information.

c. The related texts were collected to analyze the language used in the journals.

d. The researcher finally wrote down the data systematically under different headings as tenses (past and non-past), aspects (progressive and perfective), voices (active and passive) and sentence types (simple, complex and compound) and he described

the language used in journals in terms of technical abbreviated and technical non-abbreviated words.

e. The researcher interpreted and described the data and finally presented the findings and recommendations.

2.5 Limitations of the Study

a. The area of the study as indicated by the title was limited to only the language of medical journals.

b. The study was based on the three medical journals mentioned below:

S.N.	Journals	Place	Remarks
1	Journal of Nepal Medical Association (JNMA)	Nepal	Bi-monthly
2	Journal of Institute of Medicine (JIOM)	Nepal	Bi-monthly
3	Kathmandu University Medical Journal (KUMJ)	Nepal	Bi-monthly

c. The study was limited only to thirty texts, ten from each journal.

d. The study of statistical language was excluded.

e. The study was limited to the analysis of the following categories: tense, aspects, voice, sentence types and describing the language of medical journal in terms of technical abbreviated and technical non-abbreviated words.

CHAPTER - THREE

ANALYSIS AND INTERPRETATION

This chapter provides the analysis and interpretation of the language used in the texts of medical journals in terms of previously mentioned aspects such as: tense, aspect, voice, sentence type. In this process, firstly, the analysis is done and then the language of medical journal is described in terms of technical abbreviated and technical non-abbreviated words. Different tables and figures are given to make the analysis clear, as a result, the analysis and interpretation is very comprehensive.

3.1 Holistic Analysis of Tense in Medical Journals

Here the language of medical journals has been analyzed to find out the use of tense in JNMA, JIOM and KUMJ.

Table No. 1 **Holistic Analysis of Tense in Medical Journals**

Tense	**Journals**			**Total**	**Per.**
	JNMA	**JIOM**	**KUMJ**		
Past	390	414	450	1254	61.29
Non-past	238	244	310	792	38.71
Total	**628**	**658**	**760**	**2046**	**100**

The above table shows that past tense has been used more frequently in all the three medical journals. In total, 1254 sentences were found in past

tense. Non-past tense was found only in 792 sentences and this number means 38.71% in total.

3.1.1 Analysis of Tense Used in JNMA

The study has found the following frequency of tenses being used in the texts of JNMA.

Table No. 2 **Tense in JNMA**

Tense	**Freq.**	**Per.**
Past	390	62.11
Non-past	238	37.89
Total	**628**	**100**

The table clearly presents that the past tense has been used more frequently in the JNMA. Out of total 390 sentences were found in past tense. Non-past tense was found only in 238 sentences and this number means 37.89% in total.

Some examples of the use of tenses, past (1-2) and non-past (3-4) in the texts of JNMA are as follows:

1. Patients were asked to report to the hospital if there was any problem and patients who presented with complications were recorded. (Jan. – 2007).
2. The pre-discharge ECG was analyzed for evidence of true posterior infarction. (Jul. – 2007).

3. Spondylolisthesis is defined as the forward slippage of all or part of one vertebra or another (Mar. – 2007).

4. In dentistry complications are unwanted consequences experienced during oral health care delivery. (Nov. - 2007).

3.1.2 Analysis of Tense Used in JIOM

The study has found the following frequency of tenses being used in the text of JIOM.

Table No. 3 **Tense in JIOM**

Tense	**Freq.**	**Per.**
Past	414	62.91
Non-past	244	37.09
Total	**658**	**100**

The table clearly presents that the past tense has been used more frequently in the JIOM. In total, 414 sentences were found in past tense. Non-past tense was found only in 244 sentences and this number means 37.09% in total.

Some examples of the use of tenses, past (1-2) and non-past (3-4) in the texts of JIOM are as follows:

1. After completing the clinical examination, audiometric evaluation was performed using a clinical audiometer. (Jan. 2007).

2. Patients with common bile duct stones, previous gastric surgery and a history of any type pathology of digestive tract were excluded in the study. (Mar. – 2007).

3. Perforations of the tympanic membrane (TM) can result from trauma, middle-ear disease, or the treatment of middle-ear disease. (Jan. – 2007).

4. The result of this study so far indicates that 'Needle Guided Technique' is reliable, simple and cost effective technique to localize bullets especially in head and neck regions. (May. – 2007).

3.1.3 Analysis of Tense Used in KUMJ

The study has found the following frequencies of tenses being used in the texts of KUMJ:

Table No. 4 **Tense in KUMJ**

Tense	**Freq.**	**Per.**
Past	450	59.21
Non-past	310	40.79
Total	**760**	**100**

The table clearly presents that the past tense has been used with greatest frequency in the KUMJ. In total, 450 sentences were found in the past tense. Non-past tense was found only in 310 sentences and this number means 40.79% in total.

Some examples of the use of tenses, past (1-2) and non-past (3-4) in the texts of KUMJ are as follows:

1. The patient was treated in intensive care unit (ICU). (Feb. – 2007).
2. Preoperative preparation was undertaken meticulously with particular emphasis on prevention of bleeding tendencies and renal impairment. (June – 2007).
3. Nutrition is a multidisciplinary subject with community as its practice area. (Feb. – 2007).
4. Esophageal foreign bodies remain a common clinical problem. (June – 2007).

3.2 Holistic Analysis of Aspects in Medical Journals

Here the language of medical journal has been analyzed to find out the use of aspect in JNMA, JIOM and KUMJ.

Table No. 5 **Holistic Analysis of Aspects in Medical Journals**

Aspect	**Journals**			**Total**	**Per.**
	JNMA	**JIOM**	**KUMJ**		
Prog.	14	5	1	20	0.98
Perf.	78	38	43	159	7.77
Simple	536	615	716	1867	91.25
Total	**628**	**658**	**760**	**2046**	**100**

The above table shows that all the three medical journals have used simple aspect most frequently than the others. The use of the simple aspect was 91.25%. The use of perfective aspect was 7.77% whereas the progressive aspect has been used very minimally just 0.98% in total.

3.2.1 Analysis of Aspects Used in JNMA

After the careful observation and analysis of the ten judgementally selected texts of 'JNMA', the following frequency of occurrences of aspect was found.

Table No. 6 **Aspects in JNMA**

Aspect	**Freq.**	**Per.**
Prog.	14	2.23
Perf.	78	12.42
Simple	536	85.35
Total	**628**	**100**

The above table clearly presents that simple aspect has been used with majority covering 85.35% (i.e. 536 out of 628). Perfective aspect covers the second position with 12.42% (i.e. 78 out of 628). Progressive aspect is also found to be used with limited frequency, as it covers only 2.23% (i.e. 14 out of 628) of the total sentences.

Some examples of the use of aspects, progressive (1-2), perfective (3-4) and simple (5-6) in the texts of JNMA are as follows:

1. In developing countries like Nepal we are working with limited resources and poor level of patient awareness regarding dental health. (Jan. – 2007).
2. Data vis-à-vis complications of head and neck extractions are lacking in our country. (Mar, - 2007).
3. A bleeding tooth socket has been reported as the initial sign and presentation of chronic disseminated intravascular coagulopathy. (Jan. – 2007).
4. Of the 25 patients with arthrodesis alone, four had compared with seven and decompression. (Nov. – 2007).
5. Ameloblastoma is a benign but locally aggressive tumour arising from the epithelium of odorrtogenic tissue. (May – 2007)
6. Two patients of group A died on the first day. (Jul – 2007).

3.2.2 Analysis of Aspects Used in JIOM

The frequency and percentage of occurrences of different aspects in the texts of 'JIOM' selected for this study has been presented in the following table:

Table No. 7 **Aspects in JIOM**

Aspect	**Freq.**	**Per.**
Prog.	5	0.77
Perf.	38	5.77
Simple	615	93.46
Total	**658**	**100**

The above table shows that simple aspect is used most frequently than other aspects in the texts of JIOM. It covers 93.46% (i.e. 615 out of 658). Perfective aspect occupies the second position with 5.77% (i.e. 38 out of 658). Progressive aspect is also found to be used with very limited frequency, as it covers only 0.77% (i.e. 5 out of 658) of the total sentences.

Some examples of the use of aspects, progressive (1-2), perfective (3-4) and simple (5-6) in the texts of JIOM are as follows:

1. This study has been focusing on the role of H. pylori in gastric pathology of patients. (Jan. – 2007).
2. Those referral centers where patients were coming from all parts of the country and concentrated with relapse chronic treatment. (July – 2007).
3. However, there have been reports that site of perforation affects the degree of hearing loss. (Jan. – 2007).
4. 'Needle – guided technique' has been highly expected since last one decade and to fulfill this expectation, author has tried to explore a new method here. (May – 2007).
5. Drug resistance poses a major problem because it is difficult and expensive to treat successfully. (Sep. – 2007).
6. Arteriosclerosis is a major risk factor of coronary heart diseases and cerebrovascular disease. (July – 2007).

3.2.3 Analysis of Aspects Used in KUMJ

The frequency and percentage of occurrences of different aspects in the texts of 'KUMJ' selected for this study has been presented in the following table:

Table No. 8 **Aspects in KUMJ**

Aspect	**Freq.**	**Per.**
Prog.	1	0.13
Perf.	43	5.66
Simple	716	94.21
Total	**760**	**100**

The above table clearly presents that simple aspect has been used with majority covering 94.21% (i.e. 716 out of 760). Perfective aspect deserves the second position with 5.66% (i.e. 43 out of 760). Out of 760 sentences, only one sentence was found in progressive aspect.

Some examples of the use of aspects, progressive (1), perfective (2-3) and simple (4-5) in the texts of KUMJ are as follows:

1. Ultrasonographic evaluation of 45 patients has been conducting with suspected biliary obstruction. (Oct. 2007).
2. All the cases in this study have been selected from the surgical outpatient department of SSKM hospital, Calcutta, India and College of Medical Sciences, Nepal, between March 1995 and June 2003. (June – 2007).

3. DNM has been described as a polymicrobial infection, with participation of aerobic and anaerobic bacteria. (Feb. – 2007).
4. The VAC therapy was tolerated well by all patients and remained comfortable and mobile with the device in situ. (Feb. –n2007).
5. These physiologic changes facilitate the removal of bacteria from the wound. (Oct. – 2007.

3.3 Holistic Analysis of Voice in Medical Journals

Here the language of medical journal has been analyzed to find out the use of voice in JNMA, JIOM and KUMJ.

Table No. 9 **Holistic Analysis of Voice in Medical Journals**

Voice	**Journals**			**Total**	**Per.**
	JNMA	**JIOM**	**KUMJ**		
Active	247	250	336	833	40.72
Passive	381	408	424	1213	59.28
Total	**628**	**658**	**760**	**2046**	**100**

The above table shows that passive voice has been used more frequently in all the three medical journals. The use of passive voice was 59.28% whereas active voice was used only 40.72% in total.

3.3.1 Analysis of Voice Used in JNMA

The frequency and percentage of occurrences of different voices in the texts of 'JNMA' selected for this study has been presented in the following table:

Table No. **10 Voice in JNMA**

Voice	**Freq.**	**Per.**
Active	247	39.33
Passive	381	60.67
Total	**628**	**100**

The study shows that the frequency of occurrence of PV was high in 'JNMA'. As the table shows that 60.67% (i.e. 381 out of 628) sentences were in PV. The use of AV was lower than PV which was limited to 39.33% (i.e. 247 out of 628).

Some examples of the use of voice AV (1-2), and PV (3-4) in the texts of JNMA are as follows:

1. Radiographs before tooth abstraction and also during procedure are of great value to assist with tooth extraction. (Jan. – 2007).
2. The patient underwent left medical maxillectomy with ethmoidectomy and sphenoidotomy via left lateral rhinotomy approach. (Mar. – 2007).

3. Right ventricular infraction was suspected by suggestive history, clinical findings and was confined by electrocardiogram (ECG) and echocardiogram. (July – 2007).

4. The case is presented because of its complexity of injury and rarity of incidence. (Jan. – 2007).

3.3.2 Analysis of Voice Used in JIOM

The frequency and percentage of occurrences of different voices in the text of 'JIOM' selected for this study has been presented in the following table:

Table No. 11 **Voice in JIOM**

Voice	**Freq.**	**Per.**
Active	250	37.99
Passive	408	62.01
Total	**658**	**100**

The above table clearly presents that the frequency of occurrences of the PV was high in JIOM. The table shows that 62.01% (i.e. 408 out of 658) sentences were in PV. The use of AV was lower than PV which was limited to 37.99% (i.e. 250 out of 658) sentences.

Some examples of the use of voice AV (1-2), and PV (3-4) in the texts of JIOM are as follows:

1. Bacterial vaginosis (BV) is currently the most common cause of vaginitis among women of child bearing age. (Oct. – 2007).

2. BR was not present in other 32 (47%) of the cholecystectomized patients. (May – 2007).

3. Data were collected from surgeons and pathologists' reports. (July – 2007).

4. We set out to determine the prevalence of complications of simple tooth extractions and the study was conducted within one year of time period extending from 15th March 2004 to 14th March 2005. (Jan. – 2007).

3.3.3 Analysis of Voice Used in KUMJ

From the careful study and observation of the selected texts of KUMJ, the following frequency and percentage of occurrences of different voices have been found.

Table No. 12 **Voice in KUMJ**

Voice	**Freq.**	**Per.**
Active	336	44.21
Passive	424	55.79
Total	**760**	**100**

The above table shows that PV was used more than half in the texts of KUMJ covering 55.79% (i.e. 424 out of 760) and AV was used below the frequency of half covering 44.21% (i.e. 336 out of 760).

Some examples of the use of voice AV (1-2), and PV (3-4) in the texts of KUMJ are as follows:

1. The other patient was asymptomatic after the initial attack. (Oct. – 2007).
2. Esophageal foreign bodies remain a common clinical problem. (June – 2007).
3. Antibiotics were changed to intravenous ceftriaxone, cloxacillin and metronidazole. (Feb. – 2007).
4. The study was conducted in accordance with the Helsink Declaration (1983). (June – 2007).

3.4 Holistic Analysis of Sentence Types in Medical Journals

Here the language of medical journal has been analyzed to find out the use of the types of the sentence in JNMA, JIOM and KUMJ.

Table No. 13 **Holistic Analysis of Sentence Types in Medical Journals**

Sentence Types	**Journals**			**Total**	**Per.**
	JNMA	**JIOM**	**KUMJ**		
SS	142	94	138	374	18.27
CS	228	207	233	668	32.65
CXS	258	357	389	1004	49.08
Total	**628**	**658**	**760**	**2046**	**100**

The above table clearly shows that complex sentences were used with majority covering nearly the half of the total sentences used. Complex sentences were found 49.08%. Compound sentences were found 32.65%

whereas simple sentences were found only 18.27% in all the above mentioned medical journals in total.

3.4.1 Analysis of Sentence Types Used in JNMA

Here, the language used in 'JNMA' has been analyzed to find out the use of sentence types in the texts of JNMA. After the careful observation the following frequency of occurrences of sentence types from the selected texts of JNMA has been found.

Table No. 14 **Sentence Types in JNMA**

Sentence Types	**Freq.**	**Per.**
SS	142	22.62
CS	228	36.30
CXS	258	41.08
Total	**628**	**100**

The above table shows that the percentage of the CXS has the highest frequency. It covers 41.08% (i.e. 258 out of 628). CS occupies the second position with 36.30% (i.e. 228 out of 628), whereas SS has the least used structure with 22.62% (i.e. 142 out of 628).

Some examples of the use of sentence types, SS (1-2), CS (3-4) and CXS (5-6) in the texts of JNMA are as follows:

1. This is a prospective descriptive study. (Jan.- 2007).
2. The swelling was seen to expand into the left nasal cavity. (March - 2007)

3. The pregnancy was precious because she had conceived after six years of primary infertility. (July – 2007).

4. There was no eggshell cracking and alt the teeth were intact and appeared healthy. (Mar. – 2007).

5. In the tertiary center, consultants intervened the procedure only in case the students faced problems with simple tooth extraction. (Jan. – 2007).

6. It is possible that increased mortality associated with age due to various factors associated with age itself. (Jan. – 2007).

3.4.2 Analysis of Sentence Types Used in JIOM

Here, the language used in 'JIOM' has been analyzed to find out the use of sentence types in the texts of JIOM. The study after the careful observation has found the following frequency of occurrences of sentence types from the selected texts of JIOM.

Table No. 15 **Sentence Types in JIOM**

Sentence Types	**Freq.**	**Per.**
SS	94	14.26
CS	207	31.48
CXS	357	54.26
Total	**658**	**100**

In this journal CXS has been used most frequently (more than half) covering 54.26% (i.e. 357 out of 658). CS occupies the second position

with 31.48% (i.e. 207 out of 658) and the least frequency of occurrence was SS with 14.26% (i.e. 94 out of 658).

Some examples of the use of sentence types, SS (1-2), CS (3-4) and CXS (5-6) in the texts of JIOM are as follows:

1. The patients were followed up for one to three years. (Sep. – 2007).
2. Pre-operative audiometric evaluations were done. (Jan. – 2007).
3. An oesophagogastrodudenoscopy (OGD) was performed on those 68 patients to find out cause and 2 or more antral biopsy were taken within 5 cm of the pylorus in all cases. (May – 2007).
4. This study showed women with habit of alcohol consumption had higher infection of BV but this association non significant. (Nov. – 2007).
5. Those referral centers where patients were coming from all parts of country and concentrated with relapse, chronic treatment interrupted treatment failure as well as serious patients for admission. (May. - 2007).
6. However, we could not perform pre-operative endoscopic evaluation on those patients who had post-operative biliary gastritis. (Sep. – 2007).

3.4.3 Analysis of Sentence Types Used in KUMJ

The language used in KUMJ has been analyzed to find out the use of sentence types. The study has found the following frequency of occurrences of sentence types from the judgementally selected texts of KUMJ.

Table No. 16 **Sentence Types in KUMJ**

Sentence Types	**Freq.**	**Per.**
SS	138	18.16
CS	233	30.66
CXS	389	51.18
Total	**760**	**100**

In this journal CXS has been used most frequently (more than half) covering 51.18% (i.e. 389 out of 760). CS occupies the second position with 30.66% (i.e. 233 out of 760), whereas SS has the least frequency of occurrences. It deserves only 18.16% (i.e. 138 out of 760).

Some examples of the use of sentence types, SS (1-2), CS (3-4) and CXS (5-6) in the texts of KUMJ are as follows:

1. Esophageal foreign bodies remain a common clinical problem. (June – 2007).
2. Jaundice may be obstructive (surgical) or non-obstructive (medical). (Oct. – 2007).

3. Surgical drainage is fundamental to surgical practice and is used with the aim of minimizing post-operative collection formation and wound healing problems. (Feb. – 2007).

4. In humans, GBE inhibits the formation of radiation included clastogenic factors and ultraviolet light included oxidative stress. (Oct. – 2007).

5. Recently it has been reported that lead exerted some deleterious effects on testicular steroidogenesis indirectly by decreasing serum level of gonadotropin. (Oct. – 2007)

6. An intent-to-treat analysis of a multicentre trial confirmed that EGb 761 improved cognitive function in a clinically relevant manner in patients suffering from dementia. (Feb. – 2007).

3.5 Holistic Analysis of Technical Words in Medical Journals

Here the language of medical journal has been analyzed to find out the use of the technical words in JNMA, JIOM and KUMJ.

Table No. 17 **Holistic Analysis of Technical Words in Medical Journals**

Words	**Journals**			**Total**	**Per.**
	JNMA	**JIOM**	**KUMJ**		
Tech-abbr.	188	220	157	583	25.42
Tech. non-abbr.	576	590	544	1710	74.58
Total	**764**	**810**	**719**	**2293**	**100**

The above table shows that 2293 technical words were found in the texts of the above mentioned medical journals. Among them technical non-abbreviated words were found 74.58% whereas technical abbreviated words were found only 25.42% in total.

3.5.1 Technical Words Used in JNMA

The frequency and percentage of occurrences of different technical words in the texts of 'JNMA' selected for this study has been presented in the following table:

Table No. 18 **Technical Words in JNMA**

Words	**Freq.**	**Per.**
Tech. abbr.	188	24.61
Tech. non-abbr.	576	75.39
Total	**764**	**100**

The table above shows that 764 technical words were found in JNMA. Among them 24.61% (i.e. 188 out of 764) words were found in technical abbreviated form whereas 75.39% (i.e. 576 out of 764) words were found in technical non-abbreviated form.

Some examples of technical abbreviated and technical non-abbreviated words found in the texts of JNMA are as follows:

Abbreviated Technical Words

BEP	-	Bleomycin Etoposide and Cisplatin
CCU	-	Coronary Care Unit
CT	-	Clotting Time
CVP	-	Central Venous Pressure
ECG	-	Echocardiography
GCT	-	Granular Cell Tumor
ICU	-	Intensive Care Unit
LDH	-	Lactic Dehydrogenase
MI	-	Myocardial Infarction
MRI	-	Magnetic Resonance Imaging
USG	-	Ultrasonography
UTI	-	Unitary Tract Infection

Non-Abbreviated Technical Words

Atrial	Osteomulitis
Cephalothoracopagus	Postoperative
Embolism	Tachycardia
Fibrillation	Tamponade
Hematoma	Thrombus
Hemorrhage	Vasodialators
Intraoperative	

3.5.2 Technical Words Used in JIOM

The researcher has found the following frequency and percentage of occurrences of technical abbreviated and technical non-abbreviated words in the selected texts of JIOM.

Table No. 19 **Technical Words Used in JIOM**

Words	**Freq.**	**Per.**
Tech. abbr.	220	27.16
Tech. non-abbr.	590	72.84
Total	**810**	**100**

The above table shows that 810 technical words were found in JIOM. Among them, technical non-abbreviated words were in higher frequency with 72.84% (i.e. 590 out of 810) whereas technical abbreviated words cover only 27.16% (i.e. 220 out of 810).

Some examples of technical abbreviated and technical non-abbreviated words found in the texts of JIOM are as follows:

Technical Abbreviated Words

BR - Bile Reflux

BV - Bacterial Vaginosis

CT - Computed Tomography

CT Scan - Computerized Tomography Scan

DOTS - Directly Observed Treatment Shortcourse

LDL - Low Density Lipoprotein

MDR	-	Multi-drug Resistance
OGD	-	Oesophagogastrodudenoscopy
OPD	-	Out Patient Department
PDR	-	Primary Drug Resistance
RBC	-	Red Blood Corpuscles
TB	-	Tuberculosis
TC	-	Total Cholesterol
TM	-	Tympanic Membrane

Technical Non-abbreviated Words

Arteriosclerosis
Chemotherapy
Cholesterol
Dysgerminoma
Epidemiological
Etoposide
Fluoroscopic
Germinoma
Haematoma
Hemorrhagic
Hysterectomy
Laminectomy
Mycobacterium
Phosphotungstic
Pseudoarthrosis
Radiological
Retroperitoneal
Spondylolisthesis
Surgical
Triglyceride
Ultrasonography

3.5.3 Technical Words Used in KUMJ

The researcher has found the following frequency and percentage of occurrences of technical abbreviated and technical non-abbreviated words in the selected texts of KUMJ.

Table No. **20 Technical Words in KUMJ**

Words	**Freq.**	**Per.**
Tech. abbr.	175	24.34
Tech. non-abbr.	544	75.66
Total	**719**	**100**

The above table shows that 719 technical words were found in KUMJ. Among them technical non-abbreviated words have higher frequency with 75.66% (i.e. 544 out of 719) whereas technical abbreviated words have only 24.34% (i.e. 175 out of 719).

Some examples of technical abbreviated and technical non-abbreviated words found in the texts of KUMJ are as follows:

Abbreviated Technical Words

CBD - Common Bile Duct

CDD - Choledochoduodenostomy

CSOM - Chronic Supperative Otitis Media

DNM - Descending Necrotizing Mediastinitis

ERCP - Endoscopic Retrograde Cholangio Pancreatogram

ES - Endoscopic Sphincterotomy

GBE - Ginkgo Biloba Extract

LFT	-	Liver Function Test
PAF	-	Platelet Activating Factor
PTC	-	Percutaneous Trans-Hepatic Cholangiogram
PU	-	Polyurethane
RT	-	Renal Transplantation
SM	-	Stationary Motile
ST	-	Sinus Tympani
VAC	-	Vacuum-assisted Closure

Non-abbreviated Technical Words

Antibiotic

Azathioprine

Ceftriaxone

Cholesteatoma

Ciclosporin

Cross-infection

Deltopectoral

Esophageal

Hydration

Immunosuppressed

Laparoscopic

Mytochondria

Neuropathy

Outpatient

Pharmacological

Subatmospheric

Surgical

Tachypnoic

Therapy

Thormbosis

Tracheotomy

Transplantation

X-ray

CHAPTER – FOUR

FINDINGS AND RECOMMENDATIONS

To find out the language used in medical journals in terms of tense, aspect, voice, sentence type was the principal aim of the present study. For this, three medical journals were taken from three publications such as: Journal of Nepal Medical Association, Journal of Institute of Medicine and Kathmandu University Medical Journal. Thirty purposively selected texts were observed and re-observed to get the required data. The data were carefully presented in tables and then analyzed and interpreted under different headings and sub-headings to accomplish the objectives, using simple statistical tools like average, percentage etc.

4.1 Findings

On the basis of the analysis and interpretation of the selected texts the findings of the study can be summarized as follows:

1. In case of tense, past tense is frequently used covering more than three-fifth in the sample texts of medical journals whereas the non-past tense is used in low frequency in them.

2. In the use of aspects, simple aspect is maximally used in the sample texts of medical journals. Perfective aspect is frequently used in those texts of medical journals than progressive aspect. Progressive aspect is also used but in a very low frequency.

3. Regarding the use of voice there is the use of both active and passive voices in those texts of medical journals. Passive voice is highly used covering three-fifth but active voice is used in low frequency in the texts of medical journals.

4. In case of sentence types, complex sentences are used maximally in the texts of medical journals. Compound sentences are found in the second position. The least used sentences in the texts of medical journals are simple sentences.

5. Regarding the use of technical words, non-abbreviated technical words are maximally found in the texts of medical journals covering nearly three-fourth of the total technical words used. Abbreviated technical words are found in low frequency.

So the language used in the texts of medical journals has been found to have its own structure, technical vocabularies, unfamiliar abbreviations, different form of general pattern which make medical language used in the selected journals different from others.

4.2 Recommendations

On the basis of the findings of the study, some recommendations have been suggested which are as follows:

1. The findings, in terms of tense, aspect, voice, sentence types of this research will be of a great use to teachers/learners who have been involved in teaching/learning in the course of medical reports.

2. The curriculum designers/planners should include the language of medicine in the textbook of secondary and higher-secondary levels mainly to make the students familiar with the different style of its writing. Similarly, they should design the textbooks for those who want to make their profession better under medicine by writing the related texts for newspaper and journals.

3. The differences in various aspects of language in medical texts such as: styles and patterns, technical vocabularies, unfamiliar abbreviations should highly be taken into consideration while preparing and developing teaching materials for general courses and particularly for ESP courses.

4. The researcher has found that there is a considerable difference in the use of language in medical journals than the rest of other fields. Therefore, it is recommended for the teachers/trainers that they should make their students/trainees fully acquainted with the language of medical journals focusing on its own style. They should teach their students as how to handle the language of medical texts in their difficulties.

5. Some texts of medical journals contain abstract and vague realities, unfamiliar abbreviations. Best texts are those that contain interesting facts and details which the reader can visualize such facts and details they describe, which may be difficult to capture the vital message of the texts. So, texts writers should follow explicit way to make the texts more effective to its readers.

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Appendix – I

Abbreviated Technical Words in JNMA

ACS	-	Abdominal Compartment Syndrome
APD	-	Acid Peptic Disease
AV	-	Atrio-Ventricular
BCG	-	Bacillus Calmette Guerin
AI	-	Alpha Interleukin
CIN	-	Cervical Intraepithelial Neoplasia
GCT	-	Granular Cell Tumor
IAP	-	Intra Abdominal Pressure
ICU	-	Intensive Care Unit
LV	-	Left Ventricular
LP	-	Lichen Planus
MI	-	Myocardial Infarction
MODS	-	Multiple Organ Dysfunction Syndrome
NS	-	Not Significant
NSAID	-	Non Steroidal Anti-inflammatory Drugs
OLP	-	Oral Lichen Planus
OP	-	Organophosphate

OPD	-	Out Patient Department
POP	-	Plaster of Paris
RBC	-	Red Blood Cells
RBS	-	Random Blood Sugar
RNS	-	Reactive Nitrogen Species
ROS	-	Reactive Oxygen Species
RV	-	Right Ventricular
TLC	-	Total Leukocyte Count
TNF	-	Tumor Necrosis Factor
VAS	-	Visual Analogue Scales
VPD	-	Vaccine Preventable Diseases

Appendix – II

Abbreviated Technical Words in JIOM

A	-	Abdomen
AAS	-	Atomic Absorption Spectrophotometer
ADR	-	Adverse Drug Reaction
AGA	-	Appropriate for Gestational Age
ALB	-	Albumin
ALP	-	Alkaline Phosphate
ALT	-	Alanine Transferase
ANC	-	Antenatal Check up
ATC	-	Anatomic-therapeutic Chemical
ATP	-	Adult Treatment Panel
BMI	-	Body Mass Index
CDD	-	Colonic Diverticlular Disease
CFR	-	Case Fatality Rate
CSA	-	Cross-sectional Area
CSF	-	Cerebrospinal Fluid
CVF	-	Colovesical Fistula
CWD	-	Canal Wall Down
DDI	-	Defined Daily Dose

DPT	-	Diphtheria
EUM	-	Ears Under Microscope
F	-	Face
FasL	-	Fas-Ligand
FHD	-	Family Health Division
FP	-	Forward Progressive motility
FUO	-	Fever of Unknown Origin
H	-	Head
Hb	-	Hemoglobin
HDL	-	High Density Lipoprotein Cholesterol
HG	-	Histological Gastritis
HUS	-	Haemolytic Uraemic Syndrome
IM	-	Intramuscular
IP	-	Immunization Programme
KA	-	Kala-azar
KOH	-	Potassium Hydroxide
MICU	-	Maternal Intensive Care Unit
MM	-	Moderate motile
MRI	-	Magnetic Resonance Imaging
ns	-	not Statistically Significant

P	-	Pelvis
PDD	-	Perforated Diverticular Disease
PMR	-	Perinatel Mortality
POD	-	Post operative Day
PPA	-	Post-Partum Amenorrhea
PSC	-	Perceived Self-Comfort Level
PT	-	Prothrombin Time
S	-	Spine
SAB	-	Subaracnold Block
SFG	-	Small for Gestation
SM	-	Stationary Motile
SNHL	-	Sensory Neural Hearing Loss
ST	-	Sinus Tympani
T	-	Thorax
TEN	-	Toxic Epidermal Necrolysis
TG	-	Triglycerides
VL	-	Visceral Leshnanasia

Appendix – III

Abbreviated Technical Words in KUMJ

A	-	Azathioprine
AB	-	Abortion
ADP	-	Adenosine diphosphate
BA	-	Blood Agar
C	-	Ciclosporin
CC	-	Chest Compression
CCR	-	Cigarette Consumption Rate
CPM	-	Continuous Passive Motion
DNA	-	Deoxyribonucleic Acid
ECL	-	Electrochemiluminescence
EI	-	Endotracheal Intubation
ENND	-	Early Neonatal Death
F	-	Female
FCT	-	Fever Clearance Time
FT	-	Full Term
IDU	-	Injection Drug User
IHD	-	Ischemic Heart Disease

LB	-	Live Birth
M	-	Male
MM	-	Mychophenolate Mofetil
ND	-	Normal Delivery
P	-	Prednisolone
PAF	-	Platelet Activating Factor
PEM	-	Protein Energy Malnutrition
PMR	-	Perinatal Mortality Rate
PRP	-	Platelet Rich Plasma
PT	-	Preterm
SB	-	Still Birth
SWS	-	Sturge-weber Syndrome
T	-	Tacrolinus
TSH	-	Thyroid Simulating Hormone
VPD	-	Vaccine Preventable Diseases