

Need of Knowing Medical terms in English for Medical and Para -medical staff at Urology Department

Dr. Intakhab Alam Khan

(PhD)

King Abdulaziz University, Jeddah-KSA
ikhan1@kau.edu.sa/dr.intakhab@yahoo.com

Abstract: English is global *lingua franca*. It is critically relevant for teaching of different specialties besides English being a branch of study itself. Knowing and using medical terminology in English by medical and para- medical staff is of high value. Specific terminology in certain branches of medicine needs prior knowledge in order to do medical jobs and practices in professional manner. For instance, urology or nephrology in particular, needs specific of the terms and their contextual meaning according to its structure, roots and derivation patters etc. Application of the concerned knowledge about linguistic basis of certain terms allows the practitioners to develop required skills in practical usage of English medical terminology and enhance professional level during practice at a specific department/branch of medicine or surgery. An appropriate pedagogy and training strategy is needed in order to combat the issues faced by the working professionals in a hospitals in general and at urological department in particular.

Keywords: medical terms, urology, nephrology, medical staff, linguistic basis.

1. INTRODUCTION

Quality of a medical specialty can be judged on the basis of those who are attached to the specific branch such as medical expertise, para medical staff and other support services. In other words, a branch of study of practice may not come up to the clients' expectations unless the working professionals are not knowledgeable, experienced and dedicated. Knowledge of English and awareness of medical terms in English are also essential as English is the most useful language of medicine and medical practices. If for some reasons, the working professionals are not good at English, and they could not get proper training in English, they should later be trained in Specific English while they are on the job.

Importance of Urology/Nephrology branch of Medicine

Urology is a surgical specialty which deals with diseases of the male and female urinary tract and the male reproductive organs. Although urology is classified as a surgical specialty, knowledge of internal medicine, pediatrics, gynecology, and other specialties is required by the urologist due to the wide variety of clinical problems in patients. The common sub specialties are: Pediatric Urology, Urologic Oncology (**cancer**), Renal Transplantation, Male Infertility, Calculi, Female Urology, Neurourology etc.

Nephrology: Its importance

Nephrologists study and treat kidney conditions. These can be relatively innocuous, such as recurrent kidney stones, or as potentially lethal as chronic kidney disease. Nephrologists take primary responsibility for a kidney patient's care. In addition, high blood pressure can also be related to kidney diseases. In fact, kidney disease is both a common cause and a result of high blood pressure.

Importance of English for Medical terms

Importance of English for general and specific purpose need not be over emphasized. It is the key tool of all sorts of communication including medical education. English is undoubtedly an effective tool of communication and profession with co-workers, super ordinates and patients in a medical context. English is a library language in general and medical education in particular. It is not only English that affects learning of medical or hospital English but borrowings from Latin and Greek languages.

Area of Importance and medical terms in English

English has two sub units: general English and English for specific purposes (ESP). Medical or hospital English are taught under ESP. As a specific pedagogy to the teaching of a foreign language (English), ESP methodology considers developing required proficiency in basic medical terminology in context of its functioning at lexical and morphological levels. It is obvious that medical terminology is an integral component of medical education, therefore English becomes very crucial in learning the related terms. Thus, learning medical terms in English is inevitable in most parts of the world.

2. LITERATURE REVIEW

Learning of ESP materials such as medical English plays a vital role in the success of an ESP program. It has been felt that each learner or a learner group has specific learning needs. Therefore, diagnosis becomes imperative in a given context.

Nababan (1993) pointed out that learner types should be given importance in the process of designing any specific program. In other words, the contents of a program can be selected in accordance with the need analysis.

It is felt that medical terminology in English can better be understood by keeping in mind the fact that most medical terms contain two or more combining parts: root/roots (containing essential meaning of the word); prefix (added before the root of the word); suffix (added to the end of the root of the word); combining vowels: placed between the combining forms – root, suffixes and prefixes. (Rice, 2017)

Some researchers are of the view that most effective approach of teaching medical terms could be a combination of diagnostic approach, a generative model for acquisition of medical vocabularies, using L1 in teaching L2 and other collective methods” (Gamal, 2013).

Munby (1978) felt that ESP materials and syllabus design have a close connection with the linguistic requirements of learners. Teaching of ESP vocabulary is crucial in the pedagogic setting. It is the vocabulary that serves the actual basis for the syllabus structure. According to Widdowson (2000), the fundamentals of ESP program is to conceive the course material for language use, in accordance with the specific needs of the target learners in given context.

ESP is a developing branch of English as a Foreign Language (EFL) instruction in Iran (Moslemi, Moinszadeh & Dabaghi, 2011). A crucial aspect of language education is learning English for specific purpose, with a single target of enabling the learners to know specialized vocabulary through English, and being able to use the language in the prospective profession/career. (Varnosfardani, 2009).

It has been generally thought of ‘vocabulary causes main difficulties in the attainment process of learning objectives. A comprehensive list of significant vocabulary items as a guide has long been presented for curriculum design, textbook writing and material design and production’. (Jones & Durrant, 2010). As per the suggestions propose by Huang (2007), ‘the course design along with a textbook-based corpus can enhance reading comprehension in an ESP class’. In this regard, Flowerdew (2010) opined that multiple lines of concordance output can explain morphology, context and collocations, and semantics leading to better understanding.

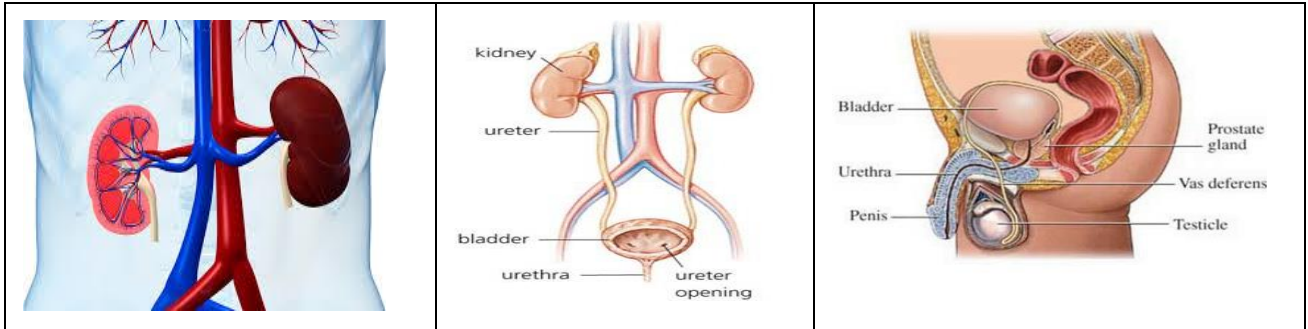
In other words, these are the terms that incorporate specific meaning in a field, are not used in general English and mostly have Latin and Greek origin (Robinson, 2009,37). Harding (2007, 10–11) is of the opinion that a student can’t afford to ignore knowledge of specific terms if he wants to learn and use ESP.

Mičić (2009, 82) supported that good medical research, innovation and textbook writing have been carried out only in English. Sinadinović (2013) contended that medical English vocabulary for Academic Purposes is usually considered to be more difficult to learn and use in practice. As regards the contents of the ESP, Brennan & Naerseen’s (1989) work highlights on the selection of the topics which are course specific and outcome based.

Studies are available in the area of learning difficulties in the area of English in general and medical English in particular, but to the best of knowledge and belief of the present writer/researcher hardly any study was found in the area of difficulties in the use of medical terms in the area of urology in particular. Therefore, this exploratory study is quite significant because English being the language of medicine is extremely relevant.

Important Urological/ Nephrological terms in English:

Image-1



What and How to learn medical terms in English Combining Forms:

Usually and mostly /o/ denotes a combining vowel completing a form. Following are some of the examples related to Urology/Nephrology:

Table-1

Words	Combining form
Urine	Ur/o
Kidney	Nephr/o, Ren/o
Ureter	Ureter/o
Bladder	Cyst/o
Renal Pelvis	Pyel/o
Urethra	Urethr/o

Suffixes:

A ‘suffix’ is a morpheme that is added at the end of a word to form a derivative (e.g. *-itis, pexy, lysis* etc). Following are the examples of those suffixes that are used in the urological context:

Table-2

Suffixes	Meanings	Comments
-lith	Stone	
-lysis	Destruction	This ‘suffix’ can be used to express destruction or decaying process
-pexy	Surgical fixation	Nephropexy, urethropexy, cystopexy, ovariopexy
-ptosis	Prolapse	nephroptosis
-rrhagia	Hemorrhage	
-rrhaphy	Suturing or stitching	nephrorrhaphy, cystorrhaphy, herniorrhaphy
-uria	Urine, Urination	lithuria
		Other examples: creatinuria, dysuria

Ur/o =urinary tract/system

Important terms and their meanings

Table-3

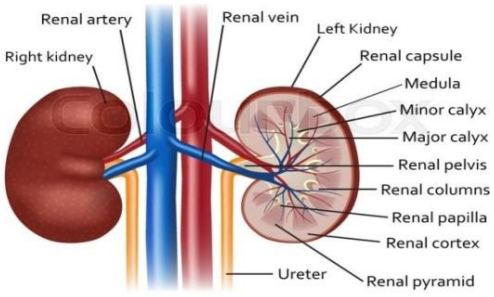
Terms	Meanings
Ur/o/logy	Study of the urinary tract
Ur/o/logist	who specializes in treating male and female urinary system disorders and male reproductive system.
Ur/o/genital or genit/o/urinary	Pertaining to urinary tract and genitals
Ur/o/pathy	Any disease of urinary tract

Nephrology:

Originated from the Greek root 'nephros' (kidney), combined with the suffix /logy/, 'Nephrology' is a specialized branch of medicine pertaining to the kidneys.

Nephro/o = Kidney

Image-2



KIDNEY ANATOMY

Labels: Renal artery, Renal vein, Left Kidney, Right kidney, Renal capsule, Medula, Minor calyx, Major calyx, Renal pelvis, Renal columns, Renal papilla, Renal cortex, Ureter, Renal pyramid.

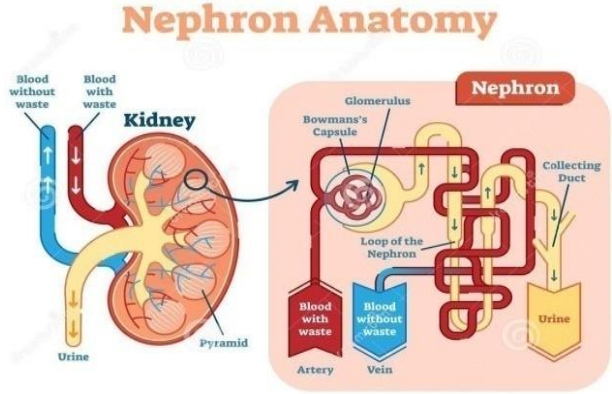
The kidneys are a pair of bean-shaped organs on either side of spine, below the ribs and behind belly. Each kidney is about 4 or 5 inches long, around the size of a human fist.

The kidneys' initial job is to filter blood. They remove wastes, control the body's fluid balance, and keep the right levels of electrolytes.

Nephron

Image-3

The **nephron** (from Greek nephros, meaning "kidney") is the microscopic structural and functional unit of the kidney. It is composed of a renal corpuscle and a renal tubule. The renal corpuscle consists of a tuft of capillaries called a glomerulus and an encompassing Bowman's capsule.



Nephron Anatomy

Labels: Blood without waste, Blood with waste, Kidney, Urine, Pyramid, Glomerulus, Bowman's Capsule, Loop of the Nephron, Artery, Vein, Collecting Duct, Nephron.

Nephrons are the functional units of the kidney. These are tiny structures in the renal cortex which filter blood to remove waste and excess water and form urine.

Conditions/disease:

- Nephritis: Inflammation of the kidney
- Nephrolith: Stone in the kidney
- Nephromalacia: Softening of kidney tissue
- Nephromegaly: Enlargement of the kidney
- Nephrolysis: Destruction of kidney tissue
- Nephroptosis: Prolapsed (fallen) kidney
- Nephroplasty: Surgical repair of kidney
- Nephropexy: Surgical fixation of kidney

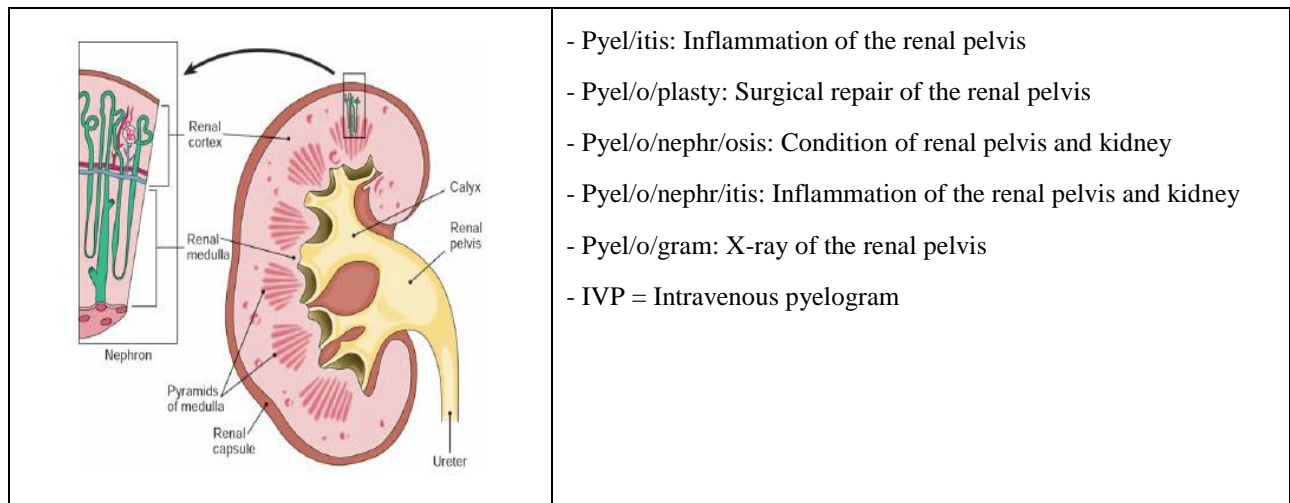
Ren/o = Kidney

- Renal: Pertaining to the kidney
- Renopathy: Any kidney disease
- Renogram: Record from an X-ray of the kidney
- Renointestinal: Pertaining to the kidney and intestine
- Renogastric: Pertaining to the kidney and stomach

It is really difficult to differentiate between the uses of the terms with two prefixes (having different root background). The users are often confused to choose a formation of the term derived from either ‘nephro’ or ‘ren’. And the reasons are quite unknown for the beginners unless they are used to such terms.

Pyelo/o = Renal Pelvis

Image-4



Poly- = Many, Too Much

Medical terms (with prefix /poly/) related to urology

- Polycystic: Having many cysts
- Polydipsia: Excessive thirst which causes the patient to drink large amounts of fluid
- Polyuria: Over-production of urine

‘Many’ in general English has a clear use and its justification, however it is quite difficult to differentiate between the prefixes like ‘poly’ and ‘multi’.

Terms related to Urethra, Ureter, Urine and Uterine

Image-5

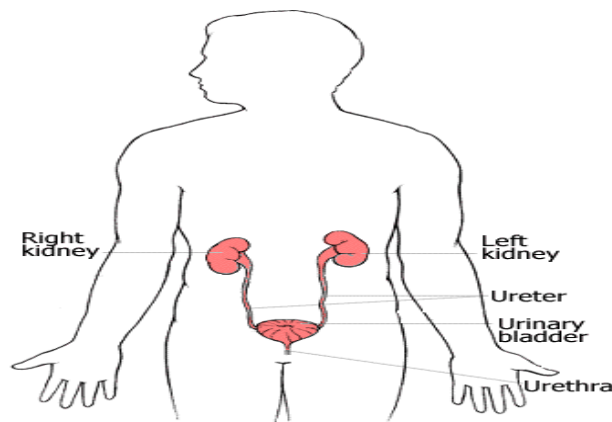
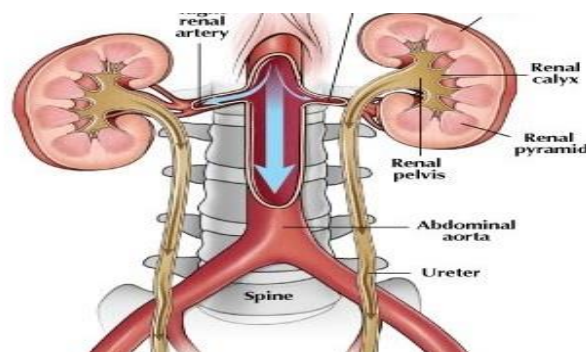


Table-4

Words	Combining forms
• Urethra	• Urethr/o
• Ureter	• Ureter/o
• Urine	• Ur/o
• Uterine	• Uter/o

Ureter/o = Ureter

Image-6



- Ureter/o/lith: Stone or calculus in the ureter
- Ureter/o/cele: Herniation of the ureter
- Ureter/o/pathy: Any disease of the ureter
- Ureter/o/pyel/o/plasty: Plastic surgery of the ureter and renal pelvis
- Ureter/o/pyel/itis: Inflammation of the ureter and renal pelvis
- Ureter/o/cyst/o/stomy: Making a new opening between the ureter and bladder
- Ureter/o/py/osis: A condition of the ureter involving pus

Urethr/o = Urethra

- Urethr/o/tomy: Incision into the urethra
- Urethr/o/spasm: Spasm of the urethra
- Urethr/o/cystitis: Inflammation of urethra and bladder
- Ureter/o/rrhaphy: Suturing or stitching of the ureters

-rrhagia = Hemorrhage (bursting forth of blood)

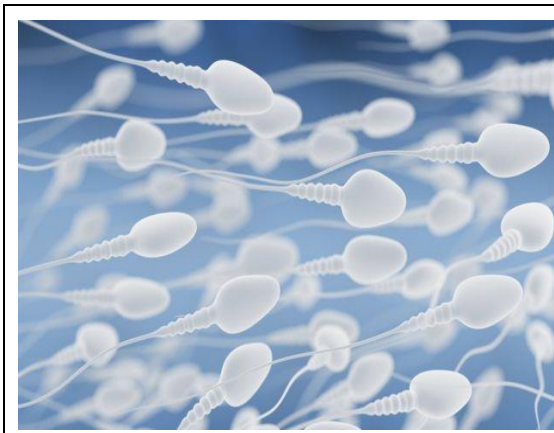
Examples of urological terms:

Suffix: **-rrhagia**

- Urethr/o/rrhagia: Hemorrhage of the urethra
- Men/o/rrhagia: Excessive menstrual bleeding
- Cyst/o/rrhagia: Hemorrhage of the bladder
- Ureter/o/rrhagia: Hemorrhage of the ureter

Spermat/o, Sperm/o(i) = Sperm

Image-7



Sperm (derived from Greek root 'sperma').

It is the male reproductive cell, and in the type of sexual reproduction. It is known as anisogamy. There is a marked difference in the size of the gametes, and the smaller one is termed as the "male" or sperm cell.

Terms related to Sperm:

- Sperm, *spermatozoa*, male germ cells
- Sperma= Seed
- Spermat/o/genesis: formation of sperm
- Sperm/i/cide
- Spermat/o/lysis
- Sperm/o/lysis, Spermat/o/lysis
- Sperm/o/blast, Spermat/o/blast

Prostat/o = Prostate Gland

Image-8



Terms related to Prostrate:

- Prostat/ic (adj.): pertaining to the prostate gland
- Prostat/itis: Inflammation of prostate
- Prostat/o/rrhea: Abnormal discharge from the prostate gland
- Prostat/algia: Prostatic pain
- Prostat/ectomy: Excision of the prostate
- Benign Prostatic Hyperplasia (BPH): enlargement of the prostate due to increase in number of cells and aging

Hyster/o = Uterus

Table-5

Term(s)	Meaning(s)
Hyster/ectomy	an excision of the uterus
Hyster/o/tomy	an incision into the uterus
Hyster/o/spasm	a spasm of the uterus
Hyster/o/gram	X ray (picture) of the uterus
Hyster/o/salping/o/gram	X-ray of the uterus and fallopian tubes to determine openness of the tubes using contrast material
Hyster/o/pathy	Any disease of the uterus
Hyster/o/salping/o/-oophor/ectomy	the excision of the uterus, fallopian tubes, and ovaries
Hyster/o/scope	Instrument used to see into the uterus
Hyster/o/scopy	The procedure of looking into the uterus

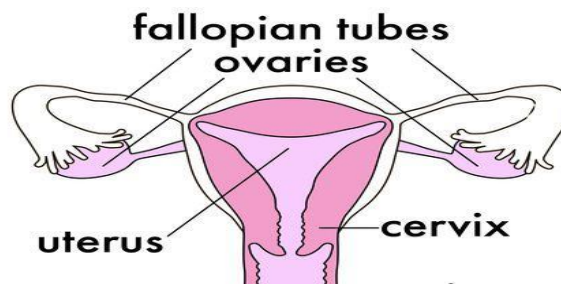
Metr/o = Uterine tissue

Table-6

Term(s)	Meaning(s)
Metra	Womb
Metr/it is	Inflammation of the uterine musculature
Endometritis	Inflammation of the uterine lining
Endo/metr/iosis	A condition in which tissue that looks and acts like endometrial tissue is found in places other than the lining of the uterus.
Metr/o/paralysis, Metr/o/plegia	Paralysis of the uterine musculature
Metr/o/pathy	Any uterine disease

Uter/o = Uterus

Uter/ine (adj.): Pertaining to uterus



(https://hips.hearstapps.com/hmg-prod.s3.amazonaws.com/images/reproductive-system-01-1531154815.jpg?crop=1xw:1xh:center,top&resize=480:*)

Cervic/o = Neck of the uterus

Table-7

Term(s)	Meaning(s)
Cervic/o/plasty	A surgical repair of the cervix
Cervic/itis	Inflammation of the cervix
Cervic/al	related to the cervix
cervicovaginitis	an inflammation of the cervix and vagina
colposcopy	
Cervic/o is also used to refer to the neck area of the spine. Use the context of the subject to know if the term referring to the neck of the uterus or the neck of the spine.	

Gynec/o, Gyn/e = Woman

Table-8

Term(s)	Meaning(s)
Gyne	Woman
Gynec/ology	Field of medicine that deals with diseases of women
Gynec/ologist	Physician who specializes in female disorders
Gynec/oid	Resembling woman
Gynec/o/pathy	Any disease peculiar to women
Gyn/e/phobia	Abnormal fear of women

Problems faced by users of Medical English:

Medical vocabulary in general and urological terms in English may present hurdles even to those who are very good in English, and also to those who can't understand the borrowings from Greek and Latin languages. It has been found that even practicing medical professional, teachers and hospital staff fail to retain what they learnt and memorized sometime earlier. (Khan, 2016). He continued that learning, mastering and using medical terms passes through various stages, and ends with proper communication. Similarly, each aspect of medical vocabulary poses great challenges to the neo-learners or even the refreshers. For example, a user faces different kinds and levels of difficulties in various components of medical vocabulary: prefix, root(s) and suffix. In addition, Greek and Latin borrowings also pose problems in the process of remembering and using medical terms on the jobs. The issue becomes more crucial if the learner is weak in English and is not well aware of derivation pattern in English. In medical English, the problem is not only related to English linguistics but also associated with borrowings from mainly two languages (Greek and Latin) as mentioned.

Examples of borrowed terms from Greek:

Some Greek root words (source: <http://www.ilekt.med.unideb.hu/kiadvany/4latineng.pdf>)

Table-9

Word formation	Example	Meaning
Single Latin word	Purpura	purple
Single Greek word	Pleura	rib
Greek prefix	menopause, menorrhagia,	Men/o/= menstrual cycle
Greek root	Oophorectomy	oophor(o) of pertaining to the woman's (ovary)
Latin + Latin 'ad'	<i>Ad-renal</i>	<i>Beside-kidney</i>
Greek + Greek 'dys'	dys + kinesia	difficult + movement
Latin + Greek 'de'	de + hydrate	removal + water
Greek + Latin 'peri'	peri + lymph	Around lymph

Word formation strategies:

The learners and users need to know word formation strategies related to some popular word building. Following examples will elaborate the case:

Greek borrowings:

In the case of classical suffixes, the following Greek patterns are not changed:

Table-10

-algia (myalgia, neuralgia)	-emia (anemia, leukemia)	-ia (pneumonia, dyskinesia)
-itis (bronchitis, bursitis)	-lysis (dialysis, plasmolysis)	-osis (diagnosis, neurosis)
-oma(adenoma, hematoma)	-uria (hematuria, nocturia)	

Latin Roots in English

Table-11

Latin Root	Meaning	English form
ann-us	year	annular, annual, annuity
Aqua	water	aquatic, aquarium, aqua
mal-us	bad	malice, malady, malicious
Minor	smaller, less	minor, minority
mult-us	many	multiple, multiply, multi-

English has not borrowed as extensively from Greek as it has from Latin; however, there are still thousands of words borrowed from Greek or based on Greek roots. Greek is a particularly rich source of medical terms. Take a look at the following list to get an idea of the role Greek words and roots play in the English language.

Greek Roots in English

Table-12

Greek Root	Meaning	English form
Hydro (prefix)	water	hydrophobia, hydrogen
Hyper(prefix)	over, beyond	hypertension
Fobia (root)	madness	hydrofobia
mikr-os (prefix)	small, little	microbe, microchip
pol-ys (prefix)	many	polyuria
scop-eo (root)	watch, look	microscope, telescope

Comparative examples: Greek and Latin

Source: https://en.wikipedia.org/wiki/List_of_medical_roots,_suffixes_and_prefixes

Table-13

Description	Greek root in English	Latin root in English
bad, incorrect	cac-, dys-	mal-
Big	mega-, megal(o)-	magn(i)-
New	ne(o)-	nov(i)-
Short	brachy-	brev(i)-
Slow	brady-	tard(i)-
Fast	tachy-	celer-

The above table confuses most of the immature users of medical terms on account of availability of both the Greek and Latin connections. For example: the user is unable to discriminate between /dys-/ and /mal/ while both are used for lack of something. This is why a learning or teaching strategy needs to be properly evolved so the learners and users can sufficiently practice in order that they don't quickly and simply forget.

3. FINDINGS AND CONCLUSIONS

The discussion above explored that medical English is difficult for those who are weak in general English. Medical English is key factor in medical and hospital practices. Urological terms are parts of medical English and are quite difficult due to difficulties of the words and simultaneous borrowings from two main languages: Greek and Latin. It is also a fact that those who study English as a foreign language (for limited purposes) can't develop appropriate proficiency which leads to linguistic and professional hurdles in many cases. Khan (2016) contended that medical vocabulary is more challenging than general words due to many reasons. The results also indicated that the words having two roots and different affixes also negatively affect the learners/practitioners' professional use of English. It was also found by the researcher that the abbreviations used in medical field are quite difficult and the connections can't be traced back as these have different associations as borrowings. The learning of medical/urological terms can be practiced and perfected by using these terms whenever there are chances at the work places.

REFERENCES

- [1] Brennan, M., & Van Naerseen, M. (1989). Language and content in ESP. *ELT Journal*, 43(3), 196-205. <http://dx.doi.org/10.1093/elt/43.3.196>
- [2] Flowerdew, L. (2010). *Using a Corpus for Writing Instruction*. In O'Keeffe, Anne & McCarthy, Michael (eds.), *The Routledge Handbook of Corpus Linguistics*. London/New York: Routledge, pp. 444-457.
- [3] Gamal, M.A. (2013). Strategies and Approaches for Teaching and Learning of Medical Terminology/International Journal of English and Education. – 2013. – Vol. 2, Issue 2. – P. 225-240
- [4] Harding, K. (2007). *English for Specific Purposes*. Oxford: Oxford University Press.
- [5] Jezikstruke: teorijaipraksa, Zbornikradova. Beograd: Univerzitet u Beogradu, 34 – 42.
- [6] Hutchinson, T. & Waters, A. (1987). *English for Specific Purposes: A learner-centered approach*. Cambridge: Cambridge University Press.
- [7] Jones, M., & Durrant, P. (2010). *What can a corpus tell about vocabulary teaching materials*. In O'Keeffe, A., & Mc Carthy, M. (Eds.), *The Routledge handbook of corpus linguistics* (pp. 387-400). New York: Routledge.
- [8] Khan, I.A. (2016). Difficulties in Mastering and Using English for Specific Purpose (Medical Vocabulary): A Linguistic Analysis of Working Saudi Hospital Professionals, *International Journal of Education*, Vol. 8, No.1. <http://ije.macrothink.org>
- [9] Mičić, S. (2009). *Studije o jeziku medicine u engles komisrpskom*. Beograd: Beogradskaknjiga.
- [10] Moslemi, F., Moinzadeh, A., Dabaghi, A. (2011). *ESP Needs Analysis of Iranian MA students: A Case Study of the University of Isfahan*. *English Language Teaching*, 4(4), 121-129.
- [11] Munby, J. (1978). *Communicative Syllabus Design*. Cambridge: Cambridge University Press. Nababan, P. W. J. (1993). *ESP: Materials Preparation in a Foreign Languages Situation*.
- [12] Robinson, N. (2009). *Vocabulary in ESP: Ideas for Bridging the 'Information Gap*.
- [13] Rice J. (2017). *Medical terminology: A word building approach*. – 6th edition, 2017.
- [14] Varnosfadrani, A.D. (2009). Teaching English for Specific Purposes. In: Reinelt, R. (Ed.), *Into the Next Decade with (2nd) FL Teaching*. Rudolf Reinelt Research Laboratory EU Matsuyama, Japan, p.181-201
- [15] Widdowson, H. (2000). On the limitations of linguistics applied, *Applied Linguistics*, 21, 3-25. <http://dx.doi.org/10.1093/applin/21.1.3>

APPENDIX-A (ABBREVIATION: ALPHABETICALLY ARRANGED)

Source: (https://www.medicinenet.com/common_medical_abbreviations_and_terms/article.htm)

Abbreviation	Terms
AID	Artificial insemination (donor's sperm)
AIH	Artificial insemination (husband's sperm)
BPH	Benign prostatic hyperplasia (hypertrophy)
CP	Chronic prostatitis
CRF	Chronic renal failure
Cysto	Cystoscopy
DRE	Digital Rectal Examination
ESRD	End stage renal disease
F	Female
Gyn	Gynecology (ist)
HSG	Hysterosalpingogram
IVP	Intravenous Pyelogram
KUB	Kidney, ureter, bladder, x-ray, radiography
PAP	Doctor of Medicine
PID	Papanicolaou test (smear)
PSA	Pelvic inflammatory disease
RPG	Prostate specific antigen
Sp gr, SpG	Retrograde pyelogram
TAH	Specific gravity
TSE	Total abdominal hysterectomy
TUR(P)	Testicular self-exam

APPENDIX-B: UROLOGICAL TERMS

Terms related to Kidney

Sources: <https://kidneyandtransplant.cochrane.org/cochrane-renal-group-glossary> <https://www.kidney.org.uk/help-and-info/glossary-of-renal-related-terms/>

Analgesic nephropathy: kidney disease caused from high consumption of analgesic (pain-relieving) medications

Artery: blood vessel taking blood from the heart to other parts of the body

Azotemia: increased serum urea levels and frequently increased creatine levels as well

Bacteriuria: the presence of bacteria in the urine

Catheter: hollow tube used to transport fluids to or from the body

Chronic renal failure (CRF): slow and progressive deterioration of kidney function -now replaced by the phrase chronic kidney disease (see above)

Continuous cycling peritoneal dialysis (CCPD): form of continuous dialysis in which the peritoneal cavity is continuously filled with dialysis fluid by a machine

Creatinine: a waste product of muscle activity that is removed from the body by the kidneys, and excreted in the urine; high levels of creatinine represent reduced kidney function

Cystitis: inflammation of the bladder

Dialysis: a treatment for kidney failure which removes wastes and water from the blood; a process by which small molecules pass from one fluid where they are in high concentration to another fluid where the concentration is lower, through a porous membrane

Euglycaemia: a normal level of sugar in the blood

Glomerular filtration rate (GFR): the filtration of the plasma per unit time and is directly related to the perfusion pressure in the glomerular capillaries.

Glomerulonephritis (GN): condition in which the glomeruli, the tiny filters in the kidneys are damaged; often referred to as nephritis

Hydronephrosis: accumulation of urine in the renal collecting system

Interstitial cystitis: a persistent and chronic form of 'non-bacterial' cystitis occurring primarily in women

Nephron: the structural and functional units of the kidney, numbering over a million in each kidney, which are capable of forming urine

Nephropathy: any disease of the kidney

Nephrosis: degeneration of the renal tubular epithelium

Polycystic kidney disease: inherited kidney disease that produces fluid-filled cysts in the kidneys that produce chronic renal failure over many years

Pyuria: presence of white blood cells in the urine

Pyelonephritis: a kind of infection of the renal pelvis and interstitium

Ureterorenoscopy (URS): visual inspection of the interior of the ureter and kidney by means of a fiberoptic endoscope

Ureter: tubular structure that transports urine from the kidney to the bladder

Urethra: tubular structure which transports the urine from the bladder to the outside of the body

Urethral syndrome: symptoms of cystitis, such as frequency, urgency and dysuria, but with negative urine cultures

Urinalysis: A test to measure the presence of protein, blood and other substances in the urine

Urology: the specific branch of medicine dealing with the urinary system in females and the genitourinary system in males

Terms related to Ureter

<https://lowcountryurology.com/glossary-of-urological-terms><https://study.com/academy/lesson/kidney-stone-ureter-problem-terminology.html>

Ureteral duplication: It is a rare anomaly in animals in which there is more than one uterus from the kidney.

Ureteral hypoplasia: It is usually segmental underdevelopment of the ureter causing stenosis and hydronephrosis

Ureteral obstruction: It is a blockage in one or both of the tubes (ureters) that carry urine from your kidneys to your bladder
ureteral stasis: synonymous with obstruction.

Terms related to Urethra

Sources:

<https://study.com/academy/lesson/bladder-urethra-treatment-vocabulary.html>

<http://www.kcurology.com/patient-resources/glossary>

Urethral agenesis, urethral atresia:

A failure of development of all or part of the urethra: characterized by complete urine retention.

Urethral calculus:

A stone impacted in urethra

Urethral fistula

due to trauma; occurs in bulls in which the urethra lies superficially near its end. A fistula may affect the discharge of semen from the normal meatus sufficiently to cause infertility.

Urethral groove

a median groove along the ventral surface of the genital tubercle providing an eventual location for the penile urethra in the male.

Urethral hypoplasia

a cause of urinary incontinence in female dogs and rarely cats.

Urethral muscle

striated muscle in the wall of the male pelvic urethra.

Urethral perforation

It usually occurs at the site of urethral obstruction by a calculus.

Often called as waterbelly which rarely occurs retroperitoneally and palpable rectally.

Urethral plate

The endodermal lining of the urethral groove that forms the lining of the spongy urethra.

Urethral prolapse

It is protrusion of urethral mucosa at the end of the penis.

Urethral prosthesis

A synthetic conduit used in the treatment of urethral stricture.

Urethral stricture

A stenosing lesion of the urethra which is usually caused by trauma such as injury associated with urethral calculi or urethral surgery.

Terms related to prostrate

Benign Prostatic Hypertrophy (BPH)

A non-malignant condition in which the prostate swells because of an increase in the size of the constituent cells and causes the same symptoms.

Benign Tumors

Non-cancerous tumors that do not spread to other areas of the body.

Biopsy

The microscopic examination of a sample of tissue to ascertain if cancer is present

Bladder Catheterization

Passage of a catheter into the urinary bladder through the urethra.

Carcinoma

Cancer that begins in the tissues that line or cover an organ.

Chemotherapy

A type of treatment of cancer with certain chemicals that interfere with cell division not only of cancer cells, but all young and dividing cells of the body i.e. blood cells.

False Negative Report

A negative result when in reality it is positive in nature.

False Positive Report

A positive result when in reality it is negative in nature.

Hormone Therapy (HT)

Hormone based treatment to prevent cancer cells from getting the hormones needed to grow.

Malignant Tumors

Cancerous tumors which are deadly.

Metastasis

The spread of cancer cells from one part of the body to another by way of the lymph system, blood stream or direct extension.

Oncologist

A medical doctor specializing in cancer related treatment or interventions.

Oncology

The branch of medical science dealing with tumors

Palliative Treatment

A kind of therapy that relieves symptoms, such as pain, but does not alter the course of the disease.

Prostate Gland

A walnut-size gland that surrounds the neck of the bladder and approximately the first inch of the urethra.

Prostate Specific Antigen (PSA)

A blood test for the measurement of a substance produced by prostate gland cells.

Therapy (RT)

Uses high energy rays to kill prostate cancer cells.

Terms related to Uterus

Amenorrhea

The absence of menstrual periods.

Antibody

A protein in the blood produced in reaction to foreign substances, such as bacteria that cause infections.

Antiprostaglandins

Drugs that relieve menstrual cramps by preventing the formation of the chemical substances (prostaglandins) responsible for uterine contractions.

Bacterial Vaginosis

A type of vaginal infection caused by the overgrowth of a number of organisms that are normally found in the vagina.

Baseline Mammogram

An X-ray of the breast taken for comparison with later mammograms.

Colposcope

A special magnifying instrument used to examine the cervix, vagina, or vulva.

Colposcopy

Viewing of the cervix under magnification with a colposcope.

Cystic Fibrosis

A genetic disease causing problems such as chronic lung problems, diarrhea, poor weight gain, and infertility.

Cystocele

The descent of a portion of the bladder into the vagina.

Dilation

Stretching of the walls of the cervix so that the opening of the cervix is widened.

Dysmenorrhea

Discomfort and pain during the menstrual period.

Dyspareunia

Pain during or after intercourse.

Dysplasia

A noncancerous condition that occurs when normal cells on the surface of the cervix are replaced by a layer of abnormal cells.

Ectopic Pregnancy

A pregnancy type in which the fertilized egg begins to grow in a place other than inside the uterus, usually in the fallopian tube.

Electrosurgical Excision

The removal process of abnormal growths (of the cervix, vagina, vulva, etc) using a thin wire loop and electric energy.

Episiotomy

A surgical incision made into the perineum (the region between the vagina and the anus) to widen the vaginal opening for delivery.

Fibrocystic Changes

Formation of benign cysts of various sizes in the breast.

Fibroids

Benign (noncancerous) growths that form on the inside of the uterus, on its outer surface, or within the uterine wall itself.

Hysterectomy

Surgical removal of the uterus.

Hysteroscopy

A surgical procedure in which a slender light-transmitting telescope, a hysteroscope, is used to view the inside of the uterus.

Incontinence (Urinary)

A condition in which urine leaks involuntarily from the bladder.

Induced Abortion

The planned termination of a pregnancy before the fetus can survive outside the uterus.

Infertility

A condition in which a woman has been unable to get pregnant after 12 months without the use of any form of birth control.

Laparoscope

A slender, light-transmitting instrument that is used to view the pelvic organs or perform surgery. Pain during or after intercourse.

Laparoscopy

A surgical procedure in which a slender, light-transmitting instrument, the laparoscope, is used to view the pelvic organs.

Lumpectomy

Surgical removal of a breast lump; also refers to 'biopsy'.

Mammography

A procedure in which X-rays of the breast are used to detect breast cancer.

Myomectomy

Surgical removal of uterine fibroids only, leaving the uterus in place.

Ovulation

The release of an egg from one of the ovaries.

Pelvic Exam

Examination of a woman's internal and external reproductive organs.

Placenta

Tissue that connects mother and fetus and provides nourishment to and takes away waste from the fetus.

Pre-menstrual Syndrome (PMS)

The term used to describe a group of physical or behavioral changes that some women experience before their menstrual periods every month.

Rectocele

Protrusion of the rectum through the vaginal wall.

Salpingo-oophorectomy

Removal of the ovary and fallopian tube

Ureters

A pair of tubes, each leading from one of the kidneys to the bladder.

Urinary Incontinence

A condition in which urine leaks involuntarily from the bladder.

Urethra

A short, narrow tube that carries urine from the bladder out of the body.

Pain during or after intercourse.

Uterus

A muscular organ located in the female pelvis that contains and nourishes the developing embryo and fetus during pregnancy.