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# English Functional-Notional Skills

Adapted to the needs of a military general practitioner

# Functional English Skills (1)

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## ● INTRODUCTION

- Good morning/afternoon/evening Ladies and Gentlemen
- My name is Dr X and I am here on behalf of the Ecole de santé des armées.
- I am honoured by the opportunity to speak to you today
- My field of speciality is sonography
- During the next 30 minutes I shall be speaking about the use of sonography in hostile environments
- There will be time for questions at the end
- So, let's begin

# Functional English Skills (2)

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## ● OPENING

- This presentation **reviews** the current state of training in ultrasound techniques.
- **By way of introduction**, I shall provide a few figures concerning the use of sonography in the French Army.
- **To begin with**, I would like to give you a breakdown per section of the armed forces, i.e. the Army, the Navy and the Airforce
- I thought that we might **start with** a few preliminary remarks about deep vein thrombosis.
- During my talk I will **look at** the various implications of extended use of echography in the field

# Functional English Skills (3)

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- **SELF-EXPLANATORY**

- Let's look at the first point, **i.e.** the introduction of sonography in military medicine.
- **By that I mean** its implementation in the field.
- **In other words**, in austere environments.
- **Allow me to explain.** I am referring to GPs working alone in the field.
- So I now come to my next point, **that's to say**, ultrasound and triage procedures.
- **Namely** its use in hostile environments
- How ultrasound can be used upstream, **so to speak**.

# Functional English Skills (4)

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## ● COMMENCEMENT

- Repetitive friction can **start** an inflammatory process
- From the **outset**, doctors had underestimated the virulence of the infection
- There was an **outbreak** of flu in 1918 that was to kill more people than the Great War itself.
- After the initial infection, gangrene **sets in** after a few days
- The **onset** of gangrene can be noticed by the colour of the wound as well as by the smell
- Serious conditions can **start out** as benign infections
- The **first signs** include respiratory distress

# Functional English Skills (5)

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- **TOPIC**

- The first **item** I will address is training in AMS (Acute Mountain Sickness)
- The second **point** we must deal with is aviation medicine
- Triage and evacuation decisions are always a tricky **question**
- The next **subject** bears on emergency medicine
- The next **topic** to be addressed is high altitude cerebral edema
- The **problem** of altitude sickness is that we don't have much experience of the phenomenon
- The evacuation decision is sometimes a difficult **issue**

# Functional English Skills (6)

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## ● CENTRALITY 1

- Catastrophic haemorrhage is the **main** cause of death on the battlefield.
- Ultrasound is a **core** element in triage procedures.
- The role of ultrasound can be **key/essential** during the « golden hour ».
- The **bulk/focus** of our study bore on GPs working alone in hostile environments.
- **For the most part**, we used multiple choice questionnaires.
- Mandatory training in ultrasound techniques should be a **key priority** in the coming years.
- Malaria is **the leading** cause of morbidity among adult refugees in Malawi
- During this time, malaria was a **major** cause of death at Sakaeo
- Prompt evaluation and treatment are the **keys** to success

# Functional English Skills (7)

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## ● CENTRALITY 2

- Ultrasound is a **cornerstone** in triage procedures.
- Training is the **keystone** for development of in-the-field use of sonography
- Effective therapy for HAPE (High Altitude Pulmonary Edema) **is based upon** increasing oxygen availability and decreasing artery pressure
- Once symptoms have subsided, quadriceps strengthening exercises are a **mainstay** of therapy
- Research on high altitude medical problems have tended **to centre around** recreational altitude exposure
- Triage procedures **hinge on** ultrasound and clinical examination.
- FAST examination is **pivotal** in the triage decision.

# Functional English Skills (8)

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## ● TRIGGER 1

- Estrogen deficiency can **bring about** high rates of fractures among women
- The coughing is **triggered** by the dessication of the pharyngeal mucosa from breathing cold air
- Hospitals in the 18th century were the chief **cause** of sickness and death in the army
- Multiple factors **contribute to** decreasing food consumption at high altitudes. Altitude dulls taste and makes food less palatable
- An additional minute of boiling is needed for each 300m gain in elevation due to the lower boiling point of water **caused by** lower atmospheric pressure
- Measles infection may **lead to** or exacerbate vitamin A deficiency
- 
- The success of sonography has **given rise to** an increased demand for training

# English Functional Skills (9)

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## ● TRIGGER 2

- This technology has positively **influenced** diagnosis time
- **Behind** this improved figure is the introduction of ultrasonic techniques in the diagnostic phase
- It was shown that active immunity to typhoid **could be induced** in humans using dead salmonella typhi
- **It was for this reason** that inoculation of the troops began on a wide scale in 1910
- The extreme demands of war have **driven** medical advance and innovation
- HAPE is a non cardiogenic pulmonary edema occurring in unacclimatized individuals **following** a rapid ascent to high altitudes
- Another factor that **strongly influences** disease patterns at these altitudes is poor field sanitation

# English Functional Skills (10)

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## ● TRIGGER 3

- HACE (High Altitude Cerebral Edema) can often **provoke** early signs of truncal ataxia and social withdrawal
- Chronic exertional compartment syndrome is one **cause of** shin pain that may affect women in a military environment.
- With CECS (Chronic Exertional compartment Syndrom) anterior lower leg pain is **brought on** with exercise
- Respiratory infections were **responsible for** more than 1 in every 5 deaths among children
- Measles have a **knock-on effect** on vitamin A deficiency
- The endocrine system **plays a vital role in** bone health
- When blood flow to the muscles decreases it **can lead to** ischemia

# Functional English Skills (11)

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## ● CAUSAL RELATIONSHIP 1

- Peripheral edema is more common among females but is not thought to be related to menstrual cycles
- Coxa vara and osteopenia may also predispose the femoral neck to injury
- Sonography explains/goes a long way to explaining the reduction in time between diagnosis and operative care
- X% of unnecessary evacuations can be put down to/can be explained by the absence of ultrasonic equipment
- The avoidance of needless evacuations has been directly linked to the use of ultrasonic equipment
- Up to 50% of all deaths were attributed to diarrheal disease
- A soldier's level of physical fitness is unrelated to his susceptibility to Acute Mountain Sickness

# Functional English Skills (12)

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## ● CAUSAL RELATIONSHIP 2

- Several studies have **demonstrated a relationship between** shorter female height and injury rates among military recruits
- 74% of mechanical hip symptoms are **not associated with** a specific event or cause
- Ultrasound **has implications** for medical training
- There is a **positive correlation** between lung cancer and smoking
- Lower extremity biomechanical differences between men and women **may account for** gender differences in training injuries
- Training errors are most commonly **implicated in** injuries sustained

# Functional English Skills (13)

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## ● CAUSAL RELATIONSHIP 3

- Because the female athlete triad (defined as amenorrhea, anorexia, and osteoporosis) is a strong risk factor for stress fractures and is a **multifactorial** problem, treatment should focus on all factors
- However, at high altitude there is a reduction in arterial hemoglobin saturation that is **dependant on** , among other things, altitude
- Mood changes **depend on** factors such as weather conditions and the psychological makeup of the soldier.
- Multiple factors **contribute to** loss of appetite at high altitudes
- Menstrual pattern is **important in understanding** a patient's injury and risk factors

# Functional English Skills (14)

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## ● CONSEQUENCE 1

- Famine does not necessarily **arise** solely from problems of food production
- **Given** the clear advantages of ultrasound equipment, training should be made mandatory for all GPs going on overseas missions
- **This is why** we are currently looking into the question of compulsory training
- Low humidity in cold, high altitude environments **results in** insensible water loss from the respiratory tracts
- Diarrheal diseases are a major cause of morbidity among refugee and displaced populations **primarily because of** the inadequacy of the water supply
- Compression-sided fractures **respond favourably to** the cessation of the inciting activity

# Functional English Skills (15)

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## ● CONSEQUENCE 2

- **Therefore**, it is recommended that leg extension machines be avoided
- Women, who are shorter, end up taking longer strides, **thus** causing hip problems such as stress reactions/fractures to the pubic rami.
- Changes in triage management were **consequent on** the introduction of ultrasound techniques
- **Consequently**, the number of needless evacuations was reduced
- Training policy should be modified **accordingly**
- Hypoxic stress **is a function of** ascent and elevation gained
- A decline in physical and mental performance **is a consequence of** altitude sickness
- HARH( high altitude retinal haemorrhage) **is thought to result from** blood pressure surges

# Functional English Skills (16)

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## ● CONSEQUENCE 3

- Ultrasound has strongly **influenced** triage management.
- Relative humidity can have a significant **impact on** patients with respiratory embarrassment.
- We shall feel the full **effect/impact of** training within X years.
- The introduction of ultrasonic technology **had the effect of** modifying diagnostic procedures
- The Queen Alexandra's Imperial Military Nursing Service Reserve (QAIMNS) was formed **in response to** the deficiencies in care highlighted during the Anglo-Boer War.
- Social withdrawal is one of the symptomatic **results of** AMS
- A drop in food consumption is **a side effect of** altitude

# Functional English Skills (17)

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## ● APPROXIMATION

- GPs said that ultrasound had helped them in **around** 54% of the cases
- In our study, **about** 80% of GPs used remote transmission with ultrasound.
- This figure is **basically equivalent** to the national average
- Our training budget is **in the region of** X million euros
- The headcount in the army is X,000 **give or take 5 thousand**
- **Nearly** 150 GPs took part in the survey
- **Some** 11% of GPs had made an evacuation decision helped by ultrasound
- Ultraviolet light intensity increases **approximately** 4% per 300 m gain in altitude

# Functional English Skills (18)

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## ● FINALITY

- Sonography was introduced **with a view to** reducing delays in diagnosis
- **The object/purpose** of this technology is to help the isolated GP in his/her diagnosis
- **It is aimed at** reducing the time between diagnosis and operative care.
- **Our objective,** is to make ultrasound training mandatory for all GPs going on missions abroad
- Ultrasound technology can be used **in order to/so as to** avoid needless evacuations
- Real-time ultrasound is a reliable noninvasive technique **to measure** thickness of these muscles.
- The technology is **targeted at** maximising the « golden hour ».
- The **goal** is to prevent chronic conditions and to help return service members to training or work as quickly and as safely as possible.
- Recommendations include core stabilization exercises **targeting** transversus abdominis and multifidus muscles

# Functional English Skills (19)

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- **LEVEL OF FIGURES**

- The survey sample **amounts to** 147 doctors
- Retinal hemorrhages occur **in up to 30% of** soldiers at 14,000 ft
- The response rate **represents** 52% of all doctors polled
- The figure of those trained in ultrasound technology **stands at** 50% of the total workforce
- The percentage of navy GPs **reached** 48% in the survey
- The patient's temperature **is running at** 100.4

# Functional English Skills (20)

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## ● RESTRICTION - OPPOSITION 1

- **Nevertheless** this reservation does not modify the overall legitimacy of the study
- **Nonetheless**, it still appears possible that a bursitis could coexist
- **However**, production and use of toxins as true mass casualty weapons is not a trivial undertaking
- **That being said**, a bigger sample would have been better
- **But**, this is a relatively minor question
- **In spite of** a growing awareness about the importance of ultrasound, we still need more training in this field
- This training should not be optional. **On the contrary** it should be mandatory
- 505,657 people were killed by disease, **while** around 45,853 military personnel were killed in action, fires or drowning during the Napoleonic War.
- **Despite** having interventions in place, injuries will still happen.

# Functional English Skills (21)

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## ● RESTRICTION - OPPOSITION 2

- In the Boer War 6,000 soldiers died in action, **whereas/while** 14,000 died of disease..
- In the Franco-Prussian war, the army lost 3.47% of its headcount to enemy fire **as opposed to** 1.8% from disease. The first reversal of mortality statistics.
- **Although** not specific to military women, amenorrhea and oligomenorrhea are common findings in competitive female distance runners
- Soldiers die from combat **and yet** until the 19thc disease killed more men than combat did.
- **Unlike** medical officers in some other countries, medical officers in the RAMC do not use the "Dr" prefix, in parentheses or otherwise, but only their rank.
- **Notwithstanding** the fact that they can defend themselves with weapons, doctors are not considered as combatant under the terms of the Geneva Convention.
- **Regardless** of how good the working posture is, working in the same posture or sitting still for prolonged periods is not healthy

# Functional English Skills (22)

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- **CONCLUSION-TRANSITION**

- **So much for** ultrasound systems in the in-the-field situation
- **That concludes** my preliminary remarks about acute mountain sickness
- **To wind up on** the question of triage management, just let me say that...
- **Now let's turn our attention to** high altitude cerebral edema
- **That ties up** the question of diagnosis
- **I suggest that we now** have a look at/turn our attention to FAST training

# Functional English Skills (23)

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## ● EMPHASIS 1

- I would like to **draw your attention to** the use of ultrasound by the isolated GP
- **It's worth bearing in mind that** 75% of GPs used remote transmission in conjunction with ultrasound.
- We must bear in mind, **above all else**, that training is of the essence
- You will **notice that** ultrasound is a valuable asset in conjunction with clinical examination.
- Indeed, **it is clear that** the use of ultrasound is a cost-effective tool.
- The survey **brings out the fact** that it impacts triage procedures
- I should like to **underline/point out** the importance that we attach to mandatory training in this field

# Functional English Skills (24)

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## ● EMPHASIS 2

- I do feel that we should not forget that there are important cost benefits related to the use of ultrasound
- Nor must it be forgotten that sonography helps us during the « golden hour ».
- It must be remembered that drainage increases with altitude.
- We must stress/highlight the importance of relative gas composition within the body at high altitudes
- It's worth noticing/emphasizing that GPs in Toulon are frequently ex navy.
- Emphasis is placed on the originating doctor's responsibility in an aeromedical evacuation

# Functional English Skills (25)

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## ● REFERENCE-STANDPOINT

- *As regards/as for* diagnosis of abdominal effusion, ultrasound has a role to play
- Special training *concerns* an annual population of X, 000
- *As far as* diagnosis of intra-uterine pregnancy *is concerned*, sonography is a useful tool.
- *In this context*, special training should be provided to all GPs bound for service overseas
- The survey was a little disappointing *in terms of* response rate
- , The findings of the survey are very useful *from a training point of view*
- *From a training standpoint*, the findings are interesting

# Functional English Skill (26)

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- **HYPOTHESIS (1)**

- The training of X 000 GPs by the year 2015 is not an **unreasonable assumption**
- It has been **hypothesized** that as excessive, repetitive, submaximal mechanical forces are placed on the bone the rate of osteoblastic formation of the bone is exceeded by osteoclastic resorption
- We are **counting on** the training being made mandatory
- We are **expecting** significant demand for training courses
- We can **safely say** that ultrasound is bound to develop among the isolated GPs in an autere environment

# Functional English Skills (27)

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## ● HYPOTHESIS (2)

- In the event of a fire, the sprinkler system will be triggered.
- The fire brigade will intervene should it prove necessary
- Should the occasion arise, we shall willingly take part in a European forum on sonography.
- We estimate that by 2020, 10% of top military positions will be held by women
- We might be led to review our initial assumptions in the light of new evidence
- Unpredictable behaviour of psychiatric patients could present a hazard to aircrew

# Functional English Skills (28)

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## ● ENUMERATION 1

- **First of all**, I shall deal with acute mountain sickness
- **Secondly**, I shall address the question of HAPE and HACE
- **Lastly**, avoidance of prolonged or repetitive deep knee bending and kneeling may prevent patellar tendon injury.
- **Furthermore**, cold weather contributes to increased disease and non-battle injury
- **What's more**, I shall share with you, my experience of in-the-field medicine
- **On the one hand** we have more reliable diagnoses **but on the other**, we have a problem in terms of the number of doctors trained in this technique

# Functional English Skills (29)

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## ● ENUMERATION 2

- **Not only** does ultrasound contribute to more reliable diagnosis **but it also** has an economic knock-on effect in terms of the reduced number of costly evacuations.
- **Finally**, I shall say a few words about training
- **Not forgetting** that cold weather injury negatively impacts morale
- **Last but not least**, I shall say a few words about high altitude retinal hemorrhage
- .....**as well as** deep vein thrombosis
- **In addition**, endurance must be an integral part of each level

# Functional English Skills (30)

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## ● POSITIVE VARIATION 1

- The **increase** in altitude diminishes physical and intellectual capacity
- The First World War was the first major conflict in which mortality from battle injuries **exceeded** deaths from disease
- The percentage of women and roles these women occupy in the military have **greatly expanded** in the last ten years.
- The correct diagnoses of pleural effusion **are up by** 2.3%
- The very strong **growth** in ultrasound technology has obvious implications for training
- Considerable **gains** were achieved last year thanks to a reduction in the number of evacuations.
- The number of training days has **gone up** from X% to Y% of the total number of GPs

# Functional English Skills (31)

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- **POSITIVE VARIATION 2**

- There has been a **twofold increase** in the number of ultrasound machines over the past 5 years.
- Barometric pressure decreases with **increased** altitude
- Frequency of physical activity without adequate periods of rest may lead to an **escalation** in osteoclastic activity
- i.e. a **progression** of X%
- Consultations with a remote radiologist **went up** by X% between 2008 and 2012
- There has been significant **growth** in the number of people applying for ultrasound training
- Experiences in Afghanistan have **boosted** interest in this technology

# Functional English Skills (32)

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## NEGATIVE VARIATION 1

- Barometric pressure **decreases** with increased altitude
- Performance **decrements** and casualties can be due to hypoxia-induced altitude illness.
- Consumption of a high carbohydrate diet is an additional non-pharmacologic method of **reducing** AMS symptoms
- The number of staff on secondment has **declined considerably** over the past few years
- Resistance **is lowered** without heat acclimatization
- Dehydration will **negate** most benefits of physical fitness and heat acclimatization

# Functional English Skills (33)

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- **NEGATIVE VARIATION 2**

- The number of hours lost during the diagnostic phase has been **halved**
- There is a curvilinear **reduction** in the ambient barometric pressure with increased altitude
- The introduction of a new splint by Robert Jones **dramatically cut** the number of soldier deaths from upper leg fractures.
- The amputation rate resulting from vascular injuries **dropped from** 50% during the Second World War **to** about 10% in Korea
- By the 3rd day of heat acclimatization a soldier should be able to integrate PT runs of 20 to 40 minutes at a **reduced pace**
- The average **loss** of motion of the affected hip was as follows: 12° of abduction, 9° of external rotation...

# Functional English Skills (34)

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## ● ILLUSTRATIVE

- To illustrate my point, let's consider the training of GPs in the field
- Let's have a look evacuated psychiatric cases, i.e. cases requiring sedation
- The use of ultrasound technology has risen, notably among the isolated GPs.
- I could cite the example of reduced time for diagnosis
- Better use of the « golden hour » is a case in point
- For instance, we have made great progress in the area of luggageable systems
- Evacuation by air presents problems such as those related to air pressure, noise, humidity temperature and body gas composition which is dependant on altitude

# Functional English Skills (35)

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## ● GENERALIZATION

- **Broadly speaking**, this means monitoring follow-up in all of our joint projects
- **Generally speaking/ in general**, the cascade of physiological responses at high terrestrial elevations is triggered by hypobaric hypoxia.
- **By and large**, mountain medicine is rarely taught.
- **On the whole**, the relations between doctors and commanding officers is good
- **Overall**, females have a 25% greater risk of sustaining a grade I ankle injury than men
- **Globally speaking** sonography has had enormous positive fallout
- AMS is a self limited condition that **ordinarily** resolves within 3 to 7 days.
- If a lumbar puncture is performed the cerebral spinal fluid pressure will, **as a rule** be elevated,

# Functional English Skills (36)

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## ● VALUATION

- We **estimate** that cost savings through avoided evacuations will run into hundreds of thousands of euros
- Frequently, ultrasound **is considered to be** a luxury rather than a fundamental part of the doctor's arsenal
- We **reckon** that the use of ultrasound will develop rapidly in the next few years
- The technique will be **judged** on its performance in the field
- It **ranks** second in the list of diagnostic possibilities, after clinical examination
- The training period for ultrasound has been **put at** 240 hours
- **Valuation** of savings attributed to ultrasound are in the region of X million euros
- We should use unit injury rates as a **barometer** of physical training programme success or failure

# Functional English Skills (37)

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## ● ASSESSMENT 1

- ITB tightness can be **assessed** with Ober's test
- 21 participants enrolled in a prospective study evaluating clinical **assessment**,
- This differentiation is important because these symptoms generally **point to** patellar instability
- In a study **evaluating** the relative risk of ankle injuries in scholastic basketball players, 11,780 athletes (4,940 females) participated.
- Ergonomic **evaluation** and education are among the prevention techniques advocated
- The etiology of pain without instability is more difficult to **differentiate/appreciate**
- Such pain **is thought to be related to** a posterior-lateral shifting of the nucleus pulposus within the disc,

# Functional English Skills (38)

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## ● ASSESSMENT 2

- If low back pain or back injury occurs, serious causes/conditions need to be **ruled out**.
- In metatarsal stress fractures the **diagnosis** is generally straightforward.
- The Modified Ottawa Ankle Rules can be applied **to determine** the need for ordering radiographs following an acute ankle sprain.
- Therefore, there is a need for **investigation/dentification**, and management of potential causes for gender differences.
- An emergency referral to an orthopaedic surgeon or neurosurgeon is necessary **if there are complaints** of bowel and/or bladder loss of function
- Flynn et al developed a **clinical prediction rule** to help identify those with low back pain who would most likely benefit from manipulation.

# Functional English Skills (39)

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## ● DEMONSTRATION 1

- A bone scan can **show/identify** areas of increased activity in the bone
- There is recent **evidence** that decreased plantar flexion strength and increased dorsiflexion range of motion are intrinsic risk factors for the development of an Achilles tendon overuse injury.
- Researchers have **demonstrated** that 22% of athletes with groin pain have hip labral pathology
- The strongest **evidence suggests** that female gender, low aerobic fitness, low levels of physical activity prior to BCT, and cigarette smoking prior to BCT are risk factors. (BCT=Basic Combat Training)
- High running mileage has been **identified** as an injury risk factor,

# Functional English Skills (40)

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## ● DEMONSTRATION 2

- Researchers conducted a retrospective historical cohort study that **reported** injury rates following Australian recruit training.
- Researchers **found** that a 40% reduction in running distance was associated with a 53% reduction in stress fracture incidence
- These deep core trunk muscles, **have been shown to** be the most significant in sustaining spinal stability.
- These symptoms **can be seen** in unacclimatized soldiers at altitudes of 3,000ft
- AMS is **characterized by/can be recognised by** nausea, vomiting, and headaches

# Functional English Skills (41)

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## ● EXPERIENCE

- Women **experienced** higher rates of all physical and musculoskeletal disabilities when compared with men
- Evacuated soldiers may **undergo** stress during an aeromedical evacuation
- Overall, females had a 25% greater risk of **sustaining** a grade1 ankle sprain compared with the men.
- Females **suffer** from acetabular labral tears more often than males.
- Jobs that were identified in which females **sustained** higher rates of back disability than males include.....

# Functional English Skills (42)

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## ● PAIN

- **Sharp, intermittent** pain or associated signs like catching or locking may be secondary to intraarticular pathology
- Recent works have focused on the functional contribution of these trunk muscles to postural stabilization of the lumbar spine, as well as their respective changes in the presence of **acute and chronic** pain.
- Pain can be sharp as opposed to **diffuse**
- The common headache is characterized by a **throbbing** pain.
- A patient may experience **localized pain** and **mild/slight** edema over the involved metatarsal
- The pain from medial tibial stress syndrome usually begins as a **dull ache**
- Medial tibial stress syndrome can advance to a **sharp, penetrating, and severe** pain as the condition worsens!

# Functional English Skills (43)

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## ● EVIDENCE

- **It goes without saying** that the effects of most toxins are more severe when inhaled
- 
- **Needless to say**, prudence is the watchword
- 
- **It speaks for itself** that we must improve the training of GPs in echographic techniques
- 
- **Of course**, general deployment of ultrasound is an inevitability in the long run
- 
- **It is clear** that we have a great technique for helping the GPs in their diagnostic role
- 
- **Obviously**, the deployment of such technology has implications for training

# Functional English Skill (44)

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- **NEUTRAL TREND**

- Oxygen carrying capacity **remains** high due to increased red cell production
- 
- The number of training days given in ultrasound techniques is **holding steady**
- 
- Career **stagnation** in some cases is the result of the age pyramid
- 
- We will **maintain** the same level of ultrasound training in the coming year
- 
- The cost of the portable equipment is **offset by** savings in unnecessary evacuations
- 
- The embargo on new recruitment should help to **stabilize** our personnel costs

# Functional English Skills (45)

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- **TEMPORAL ASPECTS 1 (past time)**

- xxx 000 soldiers were on the payroll **at 31st December** 2016
- We have had several cases of tuberculosis **lately/recently**
- **Over the past few months** we have witnessed a growing number of suicides
- **Since** its introduction, the Sonsite Titan system has been amortized
- **At that time** (1991) there were very few doctors qualified in ultrasound techniques
- **Recent** works have focused on the functional contribution of these trunk muscles to postural stabilization of the lumbar spine

# Functional English Skills (46)

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- **TEMPORAL ASPECTS 2 (present time)**

- This is the **current** situation at 31st December 2XXX
- **At the present time**, several hundred doctors are undergoing sonography training
- **For the moment**, we are concentrating on the isolated doctor in the field
- The new training programme is **underway**.
- **Today**, in the field, as elsewhere, we must be cost-conscious
- A new, light-weight sonar tool is **currently** being developed

# Functional English Skills (47)

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- **TEMPORAL ASPECTS 3 (future time)**

- A new training calendar will be drawn up **as soon as it becomes possible**.
- **By next year**, many combat support hospitals will have been equipped with this material.
- An evacuee must be sent to the receiving hospital **within 48 hours**
- Reinforcements will be sent to Mali **early next month**
- The effects of training should be seen **as early as next year**
- **Over the next few weeks**, we shall be looking into the possibility of extending the trainee population.

# Functional English Skills (48)

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## ● PROBABILITY

- Initially, in AMS there will **probably** be several symptoms; headache, nausea, and vomiting
- Descent to a lower altitude **should** suffice to attenuate the symptoms.
- The **likely** route of intoxication by toxins is through the lung by respirable aerosols
- Soldiers suffering from AMS **may very well** develop HACE or HAPE

Any problems in the blood oxygen carrying capacity **may** result in hypoxemia

- Application to skin areas usually shaded is necessary to reduce **the likelihood** of sunburn from the light reflected off snow and rocks

# Functional English Skills (49)

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## ● PRECISION

- Lastly, **an explanation**; I am talking about AMS not HAPE or HACE
- **To be more precise**, I would say that...
- **More exactly**, this means that ...
- **In actual fact**, in all wars until 1870, disease killed more soldiers than enemy fire
- It's rather a question of **"X"** than a question of **"Y"**
- It would be **nearer the truth to say that...**

# Functional English Skills (50)

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## ● CLASSIFICATION

- High altitude sicknesses can be broken down into 8 main divisions
- Sprains are graded based on the magnitude of the tear and the subsequent joint instability
- Medical problems caused by high altitude can be classified into 8 broad categories
- The air evacuated patients can be divided into ambulant or litter
- Solar radiation injuries fall into 2 categories i.e. skin and eyes
- Digestive complaints can be grouped into 2 parts; constipation and piles
- This question of evacuation can be approached from several different angles
- About 75% of all injuries in Basic Combat Training can be classified as overuse injuries

# Functional English Skills (51)

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## ● DOMAIN

- Research is ongoing in the **field** of defence against toxins
- 
- High altitude sickness is not an **area** that has been very well researched
- 
- Strictly speaking, one might claim that psychological questions are outside the **sphere** of our core activity
- 
- Emergency medicine is a **sector**, that was not recognised as such before 2004, in France.
- 
- Aviation medicine is somewhat outside the **ambit** of this meeting
- Aeromedical psychology is not within my **brief**

# Functional English Skills (52)

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## ● OBLIGATION

- Psychiatric patients **must** be sedated before aeromedical evacuation
- Soldiers suffering from any altitude illness **have to be** accompanied in the descent to lower altitudes
- We **have no choice but to** continue research in this area
- Aircrew are **required to** accompany psychiatric patients on an aeromedical evacuation
- We are **obliged to** admit the possibility of a toxin attack
- Calm, professional treatment at each echelon of medical care is **mandatory,**
- We have been **forced to** adapt our training in the light of feedback from the field
- Ongoing training for all doctors should be a professional **obligation**

# Functional English Skills (53)

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- **SEQUENTIAL**

- In the first phase, the patient shows signs of weariness
- 
- Initially, fatigue is accompanied by social withdrawal
- I
- In the next phase the sickness develops into high altitude cerebral edema
- 
- Then, life expectancy does not exceed x hours
- 
- Towards the end of this phase respiratory difficulties occur
- 
- Finally, the patient dies

# Functional English Skills (54)

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## ● FREQUENCY

- Achilles, tendinitis, and tendinosis are **common** lower extremity overuse conditions in military women.
- Traumatic injuries are **typically** due to sudden energy exchanges resulting in abrupt overload with tissue trauma
- **Often**, the injured military service member will require limited duty
- ACL is the most **frequently** reuptured knee ligament
- The anterior talofibular ligament is the most **commonly** injured ligament,
- Metatarsal stress fractures, if treated appropriately, appear to heal uneventfully, and delayed union or nonunion is **rare**.
- Additionally, severe or chronic back pain of unknown origin should **always** be referred.

# Functional English Skills (55)

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- **CO-OPERATION**

- ↖ In the interventions by the fire brigade, the police are always extremely **cooperative**

- ↖

- ↖ The fire brigade staff and the police **liaise** well

- ↖ We **keep** our foreign colleagues **posted** about our research

- ↖

- ↖ The fire brigade and the police are **working closely** on such issues

- ↖

- ↖ The research centres have always had **close ties** with staff working in the field

- ↖ There are many opportunities for **fruitful collaboration**

# Functional English Skills (56)

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## ● DANGER 1

- Before 1870 we **ran the risk** of losing more troops to disease than to enemy fire
- .
- Blood transfusion in 1914 h could be highly **hazardous** because of the then current ignorance about blood groups,
- Delay in evacuation could **jeopardise** the chances of recovery
- Several studies have identified female gender as a **risk factor** in basic Army training programmes
- The equipment is precious in **life-threatening** situations
- Blood transfusions were **dangerous** operations during the First World War

# Functional English Skills (57)

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- **DANGER 2**

- Soldiers who ascend to high altitudes are **at** increased **risk** of for deep vein thrombosis
- 
- The absence of drinking water can **endanger** combat strength
- Repeated strain will **compromise** early healing of shin injury
- 
- There is always an element of **danger** in an aereomedical evacuation
- Women with excessive foot pronation are **vulnerable** to posterior tibial tendonitis

# Functional English Skills (58)

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- **ESTABLISHMENT**

- A special unit was **created** to help discharged soldiers adapt to civilian life
- 
- Special training must be **set up** to help new recruits prepare for BCT
- 
- We must clearly **establish** what our core objectives are
- 
- We have **mapped out** our action plan for the next 3 years
- 
- Guidelines will be **drawn up** to this effect
- 
- A performance monitoring system will be **put in place** to track the evolution

# Functional English Skills (59)

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- **COMPLIANCE**

- Physical training and marching should be conducted in accordance with Army Regulation 3
- Pursuant to training guidelines, a woman should not be expected to run at pre-injury levels
- immediately after convalescence.
- New female recruits reporting to BCT must be able to meet the minimum standard/requirement of three pushup repetitions, 17 situp repetitions etc.
- Recruits must comply with the recommendations on Basic Combat Training
- Trainers must respect the 25 mile limit for overall running distance during BCT

# Functional English Skills (60)

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## ● OBSTACLE

- Reservations about Brussels' position constitute a **hurdle** to further progress at the moment
- Deprivation of vitamin A can **inhibit** the capacity to see at night
- Cross-cultural misunderstandings are a real **barrier** to fostering synergy
- Motherhood is a real **obstacle** to a woman's career
- Insufficient upstream planning has often been the **stumbling block**
- There are potential **pitfalls** in evacuating severely burned patients
- Respiratory embarrassment may **stand in the way of** aeromedical evacuation
- Aircraft noise **prevents** the monitoring of audible vital signs during an evacuation
- Aircraft lighting is generally poor and this **impedes** the ability to observe skin colour change

# Functional English Skills (61)

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## ● PREVENTION-AVOIDANCE

- Xerophthalmia can be **prevented** by maintaining normal dietary levels of vitamin A
- 
- Vitamin C can **stop any development of** scurvy
- 
- Outbreaks of scurvy can be **avoided** by maintaining normal dietary levels of vitamin C
- 
- An increase in the total intake of available niacin will **prevent** the development of pellagra
- 
- An outbreak of contagious disease can be **contained** if preventive measures are taken swiftly
- 
- Increased osmotic pressure in the interstitial fluid of the compartment is likely **to impair** venous blood egress.

# Functional English Skills (62)

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- **NECESSITY**

- The major **need** is to increase oxygen supply
- Treatment of HAPE **requires** evacuating the soldier to a lower altitude
- Cases of HACE will **necessitate** evacuation to lower altitudes
- Operations in high altitude conditions **calls for** special preparation
- Evacuation by air **demands** careful consideration
- Good troop morale is a **pre-requisite**
- Hydration is **vital** at any time, but particularly at high altitudes

# Functional English Skills (63)

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## ● RESPONSIBILITY

- The GP is **in charge of** carrying out the initial examination
- Note that commanders should **assume responsibility** for physical training outcomes
- Aircrew **take care of** ambulant patients in an aeromedical evacuation
- The originating doctor is **responsible for** the preparation of aeromedical evacuation
- The doctor is **answerable to** the fire station captain
- The garrison commander is **accountable for** budget over-runs
- A doctor could be **liable** in the event of culpable negligence.

# Functional English Skills (64)

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## ● COMPOSITION

- The team is **made up of** 6 members
- 
- The team **comprises** 5 team members and a team leader
- 
- The project can be **broken down into** 3 distinct phases
- 
- There are 3 **component** parts
- 
- The work of liaison is an essential **constituent** in the arrangement

# Functional English Skills (65)

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## ● RESULT

- The **fallout** of low altitude flying is an increase in fuel cost and higher risk of turbulence
- Altitude is not **without consequence** for patients with respiratory complaints
- The **findings** of the survey are encouraging
- Recent researchers reported that lumbar stabilization programmes resulted in better **outcomes** compared with generalized exercise programmes.
- The **result** was better than expected
- Cost-savings in the energy area is a **spin-off** of joint research

# Functional English Skills (66)

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- **CONDITIONAL**

- Physical fitness is a **sine qua non condition** for engaging in Basic Combat Training
- **Provided that** the evacuee is not suffering from respiratory problems, altitude is generally not a problem
- Aeromedical evacuation is **conditional on** the permission granted by the supervising physician
- The patient can be evacuated **with the proviso that** he is not suffering from any respiratory problems.
- **As long as** the patient is well prepared, flight stress will be minimal

# Functional English Skills (67)

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## ● DETERIORATION

- Delaying evaluation and treatment may ultimately result in a slower recovery or a **worsening** injury
- SIJ pain is often **aggravated** by running, climbing stairs, getting out of a car, or any activities that require asymmetrical loading (eg, golfing) (SJC = sacroiliac joint conditions)
- HACE **gets worse** if the patient is not descended to a lower altitude as soon as the symptoms are observed
- A **deterioration** is to be feared in the event of delay in terms of diagnosis

# Functional English Skills (68)

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## ● IMPROVEMENT

- Another important method in the prevention of low back pain is to **improve** the mechanical support of the spinal joints through lumbopelvic stabilization exercises
- Therefore, it is important to perform core stabilization exercises to not only help **recover** from low back conditions, but also to prevent recurrences.
- Jumping must be eliminated until the pain has **subsided** and strength has increased.
- Good feeding practices in the field maintain and **enhance** operational performance
- **Recovery** takes place once the patient has descended to a lower altitude

# Functional English Skills (69)

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## ● MEDIUM

- The likely **route** of intoxication for soldiers is through the lung by respirable aerosols.
- Because they must be **delivered** as respirable aerosols, toxins as MCBWs are limited in effectiveness
- The **vector** for toxin as a weaponized agent is an aerosol cloud not droplets
- The principal way humans are exposed to such a cloud **is through** breathing
- Typhus is **transmitted** by fleas which are **hosted** by rats.
- Typhus is a flea-**borne** infection
- Water is not a good **medium** for toxin transmission given the dilution effect
- Evacuation to a lower altitude is vital. **In this way**, the symptoms of AMS are attenuated

# Functional English Skills (70)

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## ● VISUAL AID COMMENTARY

- As you can see on this graph, there was a significant drop/increase in the number of cases of x
- You can observe on this pie-chart the percentage of women doctors in the French armed forces
- This histogram brings out the importance of rapid triage in the « golden hour »
- This diagram highlights the cost-effectiveness of sonography in the field
- This bar-chart underlines the cost-savings achieved through the use of sonography in the field
- The dotted line represents the increased use of sonography over the past 10 years
- The solid line shows the evolution of cost-savings over the same period
- The hatched area of the pie chart represents the percentage of women doctors

# Functional English Skills (71)

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- **SUMMING UP (oral)**

- Well, to **sum up**, I should just like to remind you of the main points
- Well, **by way of conclusion**, I shall say that.
- **To summarize**, let me just say that..
- If you'll bear with me, I should just like to **run over the main points**
- It's a little more complex than that, but basically **that's the gist of it**.
- I think that you have had a pretty comprehensive **summary** of the situation.

# Functional English Skills (72)

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- **TERMINATION**

- Well, ladies and gentlemen, that concludes my presentation
- Thank you for your attention
- I should be happy to answer any questions you may have
- Thank you

# English Functional Skills (73)

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## ● QUESTION TIME

- I'm not sure that I fully understand your question
- Could I ask you to rephrase your question
- Would you mind repeating your question
- I'm sorry, I didn't grasp the last word of your question
- As far as I can gather you mean...
- I'm sorry, perhaps I didn't make it clear that I was talking about X not Y
- I'm sorry but that question is outside my field
- Well, if there are no more questions, I suggest we break for lunch

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