NEWSPAPER POST

TheSynapse
The Medical Professionals' Network

MEDICAL IMAGING

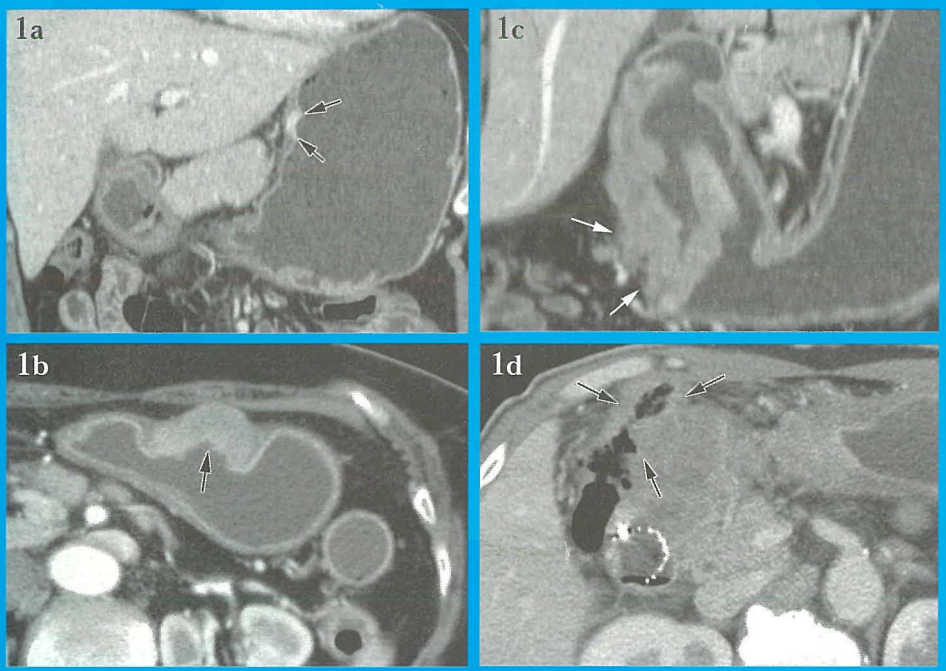

Figure 1: *Stage T1–T4 gastric tumours. (a) Coronal reformatted image shows a stage T1 tumor (arrows) with focal nontransmural enhancement in the upper body. (b) Axial CT scan shows a stage T2 tumour (arrow), a localized, transmurally enhancing ulcerative mass without perigastric extension, in the lower body. (c) Coronal reformatted image shows a stage T3 tumour (arrows), with gross infiltration of the perigastric fat tissue in the antrum. (d) Axial CT scan shows a stage T4 tumor with invasion of the colon (arrows).*

Stomach Cancer: Preoperative Staging

Stomach (or gastric) cancer is one of the leading causes of cancer mortality worldwide. Complete resection of a gastric tumour and adjacent lymph nodes represents the only potentially curative intervention.

by **Pierre Vassallo**
MD PhD FACA Artz für Radiologie
Consultant Radiologist

Spiral Computed tomography (CT) with optimal contrast enhancement and multiplanar reformatting has remained the modality of choice for the preoperative staging of gastric cancer and for follow-up. However, CT may be limited in the identification of metastases in non-enlarged lymph nodes, peritoneal dissemination, and distant blood-borne metastases.

Positron emission tomography (PET) with 2-[fluorine-18]fluoro-2-deoxy-D-glucose (FDG) is a useful diagnostic technique in clinical oncology. FDG essentially consists of glucose tagged with radioactive fluorine. Since areas of high cell turnover have higher energy (preferentially glucose) requirements, FDG will accumulate at these sites. PET detects foci of abnormally increased FDG uptake, which should correlate with areas of active tumour growth.

Although CT is reliable in detecting metastases to most locations such as the liver, lungs, adrenal glands and ovaries, FDG PET may play a role in the detection of metastases to the skeleton and to unexpected locations. In addition, FDG PET is useful in distinguishing areas of active cell growth from areas of scar tissue within CT-detected residual tumour following therapy.

Cancerous invasion of the gastric wall as visualized at CT has been classified as follows: In T1 and T2 lesions, invasion is limited to the gastric wall, whose outer border may be smooth (Figure 1a, 1b); in T3 lesions, the serosal contour becomes blurred with strand-like areas of increased attenuation extending into the perigastric fat (Figure 1c); and in T4 lesions, tumor spread frequently occurs via ligamentous and peritoneal reflections to the colon (Figure 1d), pancreas or liver.

continues on page 2

Editor's Word

We are proud to present the first issue of The Synapse Magazine for 2007. The content and format of this issue clearly represent the policy adopted by the editorial board for this year. Not only will you have access to articles written by fellow colleagues who are specialists in their field, but other important areas which are often overlooked have been included. These include a brand new feature consisting of interviews which will make you meet healthcare professionals hailing from various specialisations. This feature clearly shows our commitment of increasing awareness, not only of the sterling work being carried out in the medical field by peers but also of the importance of knowing colleagues in an informal way (without necessarily wearing lab coats or stethoscopes).

In this issue you will also find an article on ***Surgery for Skin Cancer*** with an accompanying contribution on ***Skin Grafting*** and Part II of ***Informed Consent***. Other articles which will surely capture your interest include Part II of ***Medics in Movies and Television*** and the first part of a series of articles discussing ***Invertebrates in the medical service of man***.

On a final note, let us thank you for your support and wish you a year ahead full of happiness and good health for yourselves and all your families.

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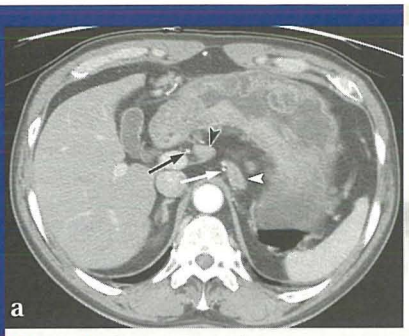
Editor: Dr Wilfred Galea
Designer: Conrad Bondin

Stomach Cancer: Preoperative Staging

Differentiation between T3 and T4 lesions is particularly important because extensive invasion of T4 lesions into adjacent structures makes surgery difficult or impossible. PET FDG is not helpful in T staging.

Several studies have confirmed the superiority of number of positive nodes in the estimation of prognosis; this can only be estimated after surgical excision: N1, metastasis in one to six regional lymph nodes; N2, metastasis in seven to 15 lymph nodes; and N3, metastasis in more than 15 lymph nodes. However, anatomic nodal location remains a valuable criterion (Figure 2) because the D classification, a description of the extent of lymphadenectomy, is determined according to the level of lymph node dissection (D1–D4). D1 lymphadenectomy involves the dissection of perigastric nodes attached directly to the stomach (compartment I or stations 1-6), whereas D2 lymphadenectomy involves complete dissection of compartments I and II (stations 1-11). The latter is the standard surgical procedure for gastric cancer in high-prevalence countries, such as Korea and Japan. D3 lymphadenectomy involves compartments I–III (stations 1-14), whereas D4 lymphadenectomy involves dissection of all four compartments (stations 1-16). In addition, the regional lymph nodes of stations 12–16 are classified as distant metastases (M1) according to the new AJCC classification system.



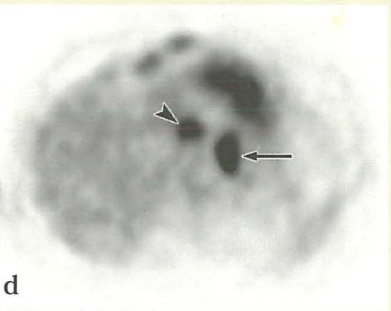


Figure 3: *Station 7 and 8 lymph node metastases in a 63-year-old man with stomach cancer. (a) Axial CT scan demonstrates a station 7 lymph node (white arrowhead) adjacent to the left gastric artery (white arrow) and a station 8 lymph node (black arrowhead) adjacent to the common hepatic artery (black arrow). The diagnosis of lymph node metastasis may be difficult if only size criteria are used. (b) Axial PET scan shows prominent FDG uptake in the corresponding station 7 (arrowhead) and station 8 (arrow) lymph nodes, a finding that suggests metastasis.*

Station	Node Location
1	Right paracardium
2	Left paracardium
3	Along the lesser curvature
4	Along the greater curvature
5	Suprapylorum
6	Infrapylorum
7	Along the left gastric artery
8	Along the common hepatic artery
9	Around the celiac artery
10	At the splenic hilum
11	Along the proximal splenic artery
12	In the hepatoduodenal ligament
12a	Along the hepatic artery
12b	Along the bile duct
12c	Behind the portal vein
13	On the posterior surface of the pancreatic head
14	Along the superior mesenteric vessels
15	Along the middle colic vessels
16	Around the abdominal aorta

Figure 2: *Lymph node stations*

At CT, cancerous nodes are identified on the basis of size, shape, and enhancement pattern (ie, more than 8–10 mm along the short axis, nearly round shape, central necrosis, and marked or heterogeneous enhancement). In addition, CT can provide anatomic information about metastatic nodes (Figure 3a). Nodal assessment of compartments III and IV is particularly important because the metastatic nodes of stations 12–16 (M1 nodes) cannot be removed with routine D2 dissection. However, CT has a major limitation in that it cannot detect metastases in normal-size nodes; FDG PET can demonstrate increased activity in such nodes (Figure 3b).

FDG PET may detect metastatic deposits in non-enlarged lymph node, but is less sensitive than CT in the detection of lymph node metastasis in compartments I-II. This is mainly due to poor spatial resolution of FDG PET, which cannot separate compartment I-II lymph nodes from the primary tumour due to close proximity (Figure 4). However, the presence of metastatic compartment I-II lymph nodes may not be important in planning surgery, since these nodes would be normally be removed by D2 surgery.

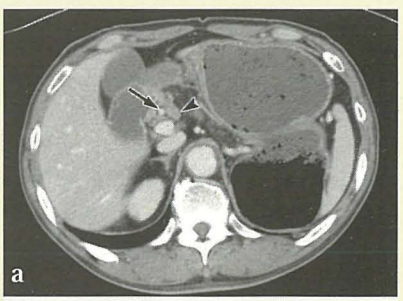


Figure 4a: *Station 12 lymph node metastases in a 65-year-old man with stomach cancer.*

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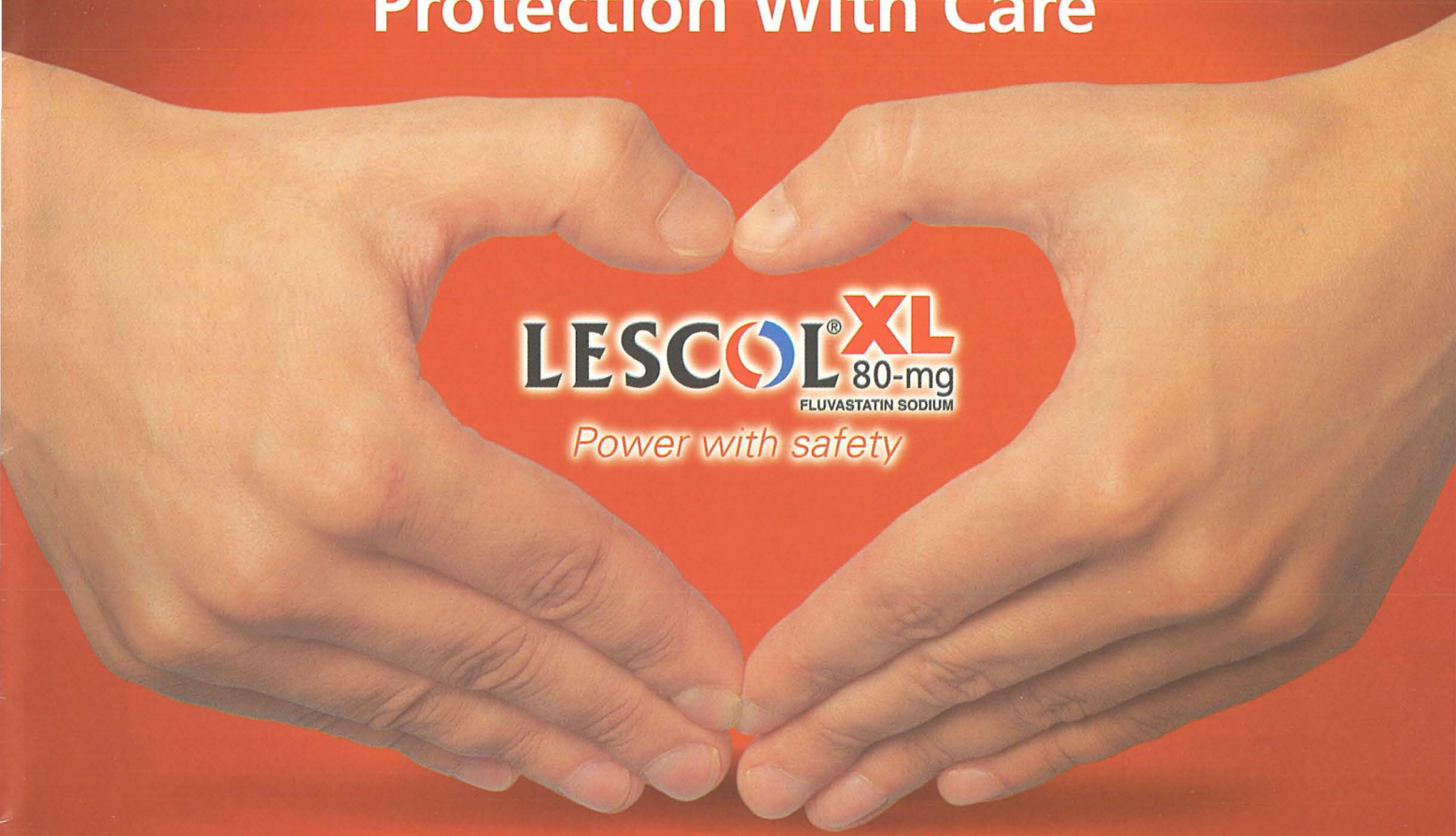
Protection With Care



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Surgery for

by **Joseph E Briffa** *MD FRCSEd FICS*
Consultant Plastic and Reconstructive Surgeon
Plastic Surgery and Burns Unit
St Luke's Hospital

Skin cancer is the commonest malignancy in the Maltese population and its incidence is rising. Surgery remains the main therapeutic modality in the clinical management of malignancies of the skin. Different forms of skin cancer require varying surgical solutions, depending on the type of cancer, its anatomical site, risk of spread and the presence of any metastases. This article aims to give a brief overview of the various common types of skin cancer and the relevant surgical options available.

Increased longevity and sun exposure are the two principal reasons for the rise in the incidence of skin cancers which we are witnessing. Although there are many different types of neoplasms arising within the skin, the three commonest malignancies of skin are Basal Cell Carcinoma (BCC), Squamous Cell Carcinoma (SCC) and Malignant Melanoma (MM). Skin cancer may arise in any age group. However, BCCs and SCCs tend to be commoner in the older population. Melanoma is the least common form of skin cancer but it is the most significant due to its potential to metastasise via the lymphatic or haematogenous routes. The incidence of MM is doubling every ten years, with peaks in the 35 - 55 and over 65 age groups. Although several aetiological factors have been implicated, the main cause is undoubtedly sun exposure leading to malignant transformation in a pre-existing naevus. People with atypical naevi, giant naevi and fair skin are at an increased risk of developing the disease.

Basal Cell Carcinoma

BCCs are the commonest skin cancers. Their presentation varies depending on whether they are cystic, ulcerated, pigmented or morphoeic in appearance. Pigmented lesions may be confused with malignant melanoma, leading to uncertainty in diagnosis. BCCs rarely metastasise. Surgery therefore consists of complete local excision of the tumour in three dimensions i.e. around the lesion as well as beneath it. In the majority of cases, as long as the tumour is completely excised, it is not necessary to excise widely, the exception being cases of morphoeic BCCs where the margins are indistinct. Excision margins of about 5 millimetres all around the tumour are usually sufficient to ensure clearance. Where possible, the wound is closed directly. However, in the case of large tumours or at anatomical sites where there is very little skin laxity such as on the lower leg, a skin graft or flap reconstruction may be necessary.

Squamous Cell Carcinoma

SCCs are also common tumours of skin. They have a greater potential to metastasise than do BCCs. However, the vast majority never exhibit such spread and surgery is therefore similar to that for BCCs in dealing with the primary tumour, excision margins being slightly wider at 5 – 10 millimetres. It is essential however to examine the regional lymph nodes for possible tumour spread. If this is detected, lymph node dissection is indicated in order to control the metastases, prevent further spread of the disease and hopefully ensure complete cure. SCCs frequently arise on the lips. In these cases, wide local excision in the form of a wedge resection is often possible. It may occasionally be necessary to excise the whole vermilion border of the lip when dysplastic changes are widespread. Reconstruction may then take the form of a mucosal advancement from inside the mouth to reconstitute the lip margin. Where a lip tumour has invaded extensively, flap reconstruction is necessary to restore appearance and function as much as possible.

Malignant Melanoma

There are various types of malignant melanoma, namely:

1. Lentigo maligna (Hutchinson's melanotic freckle) – an early melanoma with a good prognosis typically occurring in older patients, most commonly on the face, upper trunk and arms. This may be considered as an in-situ tumour.

2. Superficial spreading melanoma – the commonest form of melanoma where the tumour is in a radial growth phase i.e. it is spreading along the surface of the skin prior to deeper invasion. This is a thin tumour commonly arising on the trunk and legs.

3. Nodular melanoma – the tumour has gone from a radial to a vertical growth phase i.e. it becomes deeply invasive and therefore has a greater potential to metastasise.

4. Acral lentiginous melanoma – these arise on the palms of the hands, soles of the feet and subungually and are said to be more aggressive in their behaviour.

5. Amelanotic melanoma – these are not pigmented, possibly due to spontaneous regression related to an individual's immune response to the tumour. This makes clinical diagnosis more difficult and regression means that it is impossible to accurately determine the depth / thickness of the tumour.

The two pathological classifications depend on the depth of invasion in the skin and on the tumour thickness in millimetres.

Clark's classification

Level I	confined to epidermis
Level II	dermoepidermal junction
Level III	invading papillary (superficial) dermis
Level IV	reaching reticular (deep) dermis
Level V	breaching the skin and invading subcutaneous fat

Breslow's classification (measures the tumour thickness in millimetres).

Up to 0.75 mm	(comparable to Clark Level II)
> 0.75 - 1.5 mm	(comparable to Clark Level III)
> 1.5 - 4.0 mm	(comparable to Clark Level IV)
> 4.0 mm	(comparable to Clark Level V)

Both classifications are prognostic indicators of survival as the deeper the tumour, the more likely it is to metastasise.

The mainstay of management of malignant melanoma remains surgery. Following excision biopsy, wide local excision is performed, with surgical margins depending on Breslow's thickness of the tumour. Although several studies are ongoing to determine the ideal width of

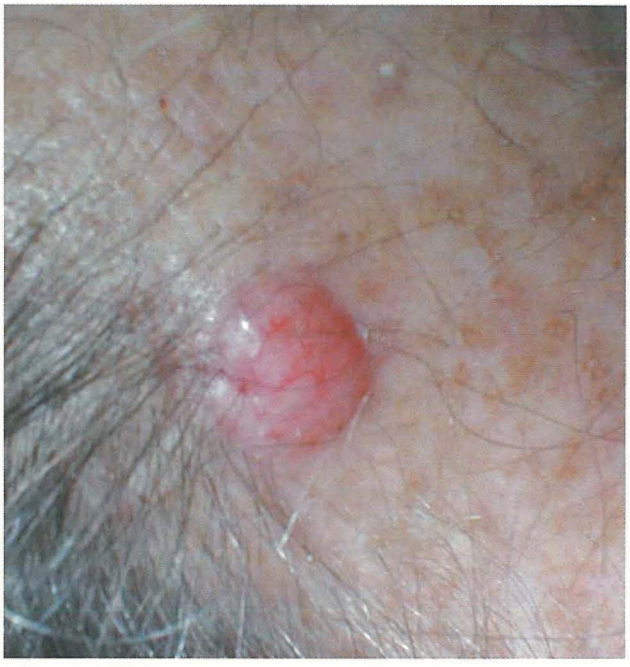
Skin Cancer

clearance, a useful guide is the following:

Tumour < 1.0 mm thick	1.0 centimetre margins all around
Tumour 1.0 - 3.0 mm	2.0 centimetre margins all around
Tumour > 3.0 mm	3.0 centimetre margins all around

The resultant defect is closed either directly whenever possible or by means of a split skin graft (SSG). In cases of MM affecting the lower limbs, the SSG is harvested from the contralateral thigh in order to avoid in-transit metastases in the graft donor site. Wide local excision only prevents local tumour recurrence and does not affect the survival rate. Presumably the tumour has already metastasised prior to excision in cases that develop regional or disseminated disease. Metastatic skin nodules are treated by excision and regional nodal metastases by block dissection.

Sentinel lymph node biopsy may be carried out at the time of wide local excision in order to determine the need for formal lymph node dissection in the absence of palpable / enlarged regional lymph nodes. A dye or radioactive marker is injected into the skin around the site of the primary MM. Following sufficient time for lymphatic uptake of the marker, the regional nodes are explored and the draining sentinel node identified visually or by means of a Geiger counter. This is excised and submitted for immediate histological examination. If it is negative for tumour, no further surgery is indicated. However,



if it is positive for micrometastases, a block dissection of all the regional nodes is carried out.

Skin Grafting

by Victor Chircop SRN
i/c Burns and Plastics Dept.
St. Lukes Hospital

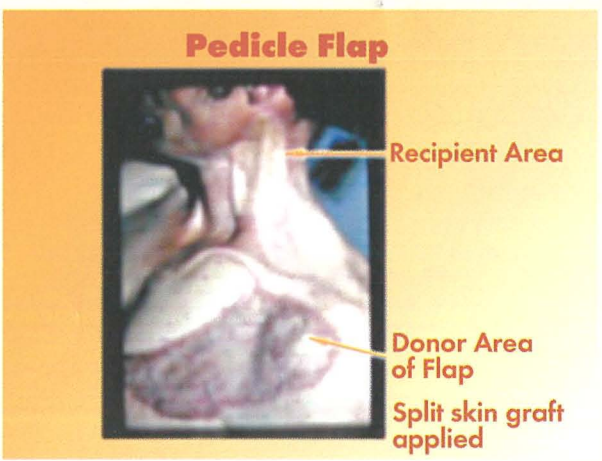
The Skin, being the largest organ of the body measuring about 1.6m² in a medium built adult, offers as wide a selection of grafting operations as one can imagine. It is documented that the Hindus in India performed skin transplants as early as 3000 years BC. However it was in the last century, that skin grafting was researched, revolutionised and put under the heading of Plastic and Reconstructive Surgery. The nursing care too, has to be specialised so as to deal with the different, delicate operations performed.

Skin Grafting is one of the basic procedures of Plastic Surgery. Skin Grafting is the removal of healthy skin from an area of the body (donor site) and the transplantation to another area (recipient area) where the skin has been damaged. The most commonly used donor sites are the buttocks, the thigh and the forearm.

The Skin

The skin covers the body and protects the deeper tissues from injury, from drying and from invasion by foreign organisms. It contains sweat glands and hair follicles which play an important part in the regulation of body temperature. Sebaceous glands help to maintain the skin soft and healthy, whilst the sensory nerve endings within form the sense of touch.

The skin is composed of two layers, the outer non-vascular layer is called the Epidermis whose surface is worn away whilst new cells are supplied thus protecting the underlying structures. The Epidermis in the weight bearing areas is much thicker. The deeper layer is called the Dermis and is made up of vascular connective tissue which is tough, flexible and highly elastic. This layer protects and nourishes the organs of the skin. This layer varies in thickness too, thus being thicker on the posterior aspect of the body than the front.



Skin Grafting is categorised into three types:

1. Split Skin Graft – This type involves the harvesting of the epidermis and a part of the dermis. The thinner the graft is, the more likely it is to take and increases the chances of pigmentation and contraction, whilst decreasing the healing time of the donor site. This type of grafting is most suitable in cases of severe burns where the donor area is limited and this same area has to be utilised again. A Braithwaite knife or a Dermatome is used to shave off the skin graft from the donor site. The skin is then passed through a Mesher machine producing small slits which will allow any blood or fluid to pass through once the skin is transplanted. The skin graft is always stitched or stapled to the recipient area to prevent it from displacing. The graft is covered with a non-adherent, absorbent, light compression dressing and left covered for five days. The donor area is covered with a non-adherent, absorbent dressing and left covered for ten days. These patients are nursed with complete bed rest with the effected part elevated. Pain killers are given to alleviate pain at the donor area. These measures will help to prevent swelling, reduce pain and improve the chances that the graft will take. Once the areas are healed, moisturising creams are applied, once or twice a day for as long as three months.

2. Full-Thickness Graft – For a better end result, a full-thickness skin graft is necessary. This type of graft involves the entire thickness of skin (Epidermis and Dermis). This skin graft is excised by using a scalpel and scissors. It is stitched to the recipient area using a tie-over of foam or cotton wool so that all of the graft is made to maintain contact with the raw area for healing to take place. The outcome of the full-thickness graft is like that of normal skin, so it is recommended for areas where cosmetic appearance is needed eg. face. Damaged skin overlying joints is also replaced by this type of graft, to help maintain the full range of movement. Common donor sites are the areas behind the ears, the neck, inner side of the upper arm and the groin. The edges of the donor area are stitched together, or if the area is big, a split skin graft is applied. It is very important to protect the area from trauma or stretching and maintain elevation for two weeks.

3. Composite Grafts or Flaps – Composite grafts are combinations of skin and other deeper tissues such as fat, fascia, muscle and bone. Such grafts are used in areas that require three dimensionality such as the nose, chin, breast, etc. Plastic and Reconstructive Surgery refers to such delicate and professional skill combined with artistic abilities of the surgeon.

Flaps are classified as being either Local or Distant.

A Local flap is an elevated piece of tissue attached at one end and which is constructed next to a wound. The flap is left attached so that the blood supply is left intact. The flap is then rotated and stitched over the wound. The area from where the flap is taken is closed with stitches. Its use is mainly on the face and any other part of the body where the blood supply is not compromised.

A Local Flap can be devised differently as:

a. Rotation Flap;
b. Advancement Flap;
c. Transposition Flap.

continues on page 16

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Informed Consent – Part II

by **Pierre Mallia** *MD MPhil PhD FRCGP*
Director, Centre for Bioethics, Medical School

In the first part we have discussed the first two stages to the Informed Consent Process. In this second part, we will deal with the last three stages, namely, what constitutes a voluntary choice, competence and consent.

3. Voluntariness

Are we making sure that people are making a voluntary choice? Are they being influenced by relatives or perhaps the situation? We are all influenced to a certain extent by the circumstances that we are in. If I have cancer I may make a so-called voluntary choice to have chemotherapy. But if I *really* had the choice, I would not have chemotherapy. It is the nature of my circumstance that made me make that decision. Without entering the philosophical debate on determinism and free will, it is obvious however that a free choice is not a random one. It follows a process of thinking and understanding. Thinking can only be done if I am given the information to evaluate. I can exercise my right *not to know*, but then I am compromising the information I have with which to think about my condition and make a choice.

However there are clear circumstances which compromise a voluntary choice. *Coercion*, the forcing of someone to make a choice, is the most obvious. People, especially the frail and/or dependent patient, such as an elderly person, may be forced to take medication or to make a decision regarding an operation or entering a home, by their children. A patient of mine decided to enter a home, against her own will, because one of her sons categorically repeated that he will never visit her if she lived with her daughter. He was at loggerhead with his sister's husband. A second way in which a voluntary choice is effected is *manipulation*. Do we try to make things look nicer than they actually are? Do we try to give a better picture or omit telling the patient some information which we are sure will make them change their minds. If we do we are paternalistic, period. This is not to say that we cannot exercise a *therapeutic privilege*, in extreme circumstances when we know that a particular piece of information is going to be harmful to the patient. Neither has it to do with being optimistic. These are in themselves virtuous acts. But being unduly optimistic may actually harm a person by forcing him or her to make a choice that they otherwise would not have made. Perhaps the person would prefer staying at home the last few months of his life instead of doubling the life-span but spending it in and out of hospital and treatment rooms. Manipulation is therefore the thwarting of news in a way that people understand something differently or understand what we want them to understand. Our political news channels are a clear example. You say something in public and one station makes it sound one way and another station makes it sound the exact opposite. *Il tono fa la musica.*

Negligence can even be considered when there is an act of omission – such as not practicing informed consent

4. Competence

This is by far the most important condition. Is the patient competent to make a choice? Obviously, as pointed out, children, demented people and psychotic patients, are all not competent to make a choice. But some older children can be considered competent to participate in their treatment. Certainly paediatricians are used not to give a particular medication because the child has expressed an aversion and moreover asked if he or she can do without it; or perhaps refuse altogether to take it.

Conversely a fever, or simply after just receiving bad news may render me incompetent for a while. Emergency situations are also a clear example of situations in which patients are not always competent. In this circumstance the physician must exercise the time-honoured virtue of prudence and act in order to save life. No one can have a case against someone who practiced the socially accepted ethos of his profession.

5. Consenting

Finally the actual act of giving consent (or refusing). Ideally this is done in writing but morally it is really not required. We witness countless patients signing consent forms which in a court of law will automatically be thrown out. A signature signifies nothing unless the above procedures have been followed and thought through. What is more important is actually making a note that one has been through the informed consent process; and, of course, patient satisfaction. The signing is a mere formality which is completely different from when we sign a business contract – although it should not be. Therefore if I sign a consent form without actually having understood, or without actually having been given the information, I may be competent to sign the document but indeed would not have acted autonomously and therefore that contract does not hold. It is the doctor's responsibility to see that the patient has understood and not merely that he 'told' the patient. Relying on other doctors (those junior to you, for example) may be risky, as at the end of the day it is the person performing the procedure who is responsible. Negligence can even be considered when there is an act of omission – such as not practicing informed consent.

Naturally being incompetent in one area of life need not render me incompetent in another. Therefore epilepsy, notwithstanding being a neurological condition, may render someone incompetent to drive a vehicle, but still able to participate in the treatment and therefore still competent. Whoever said our job was straight forward?

In the following article I will discuss Negligence and Malpractice and following that, we will attempt to debunk the myth of data protection, which *everybody suddenly is speaking about – as if it never existed.*

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[1] Law M. BMJ 2000; 320: 861-864.
[2] Katan MB et al. Mayo Clin Proc 2003; 78: 965-978.
[3] Jones PJ et al. J Lipid Res 2000; 41: 697-705.
[4] Pouteau EB et al. Eur J Nutr 2003; 42: 154-164.

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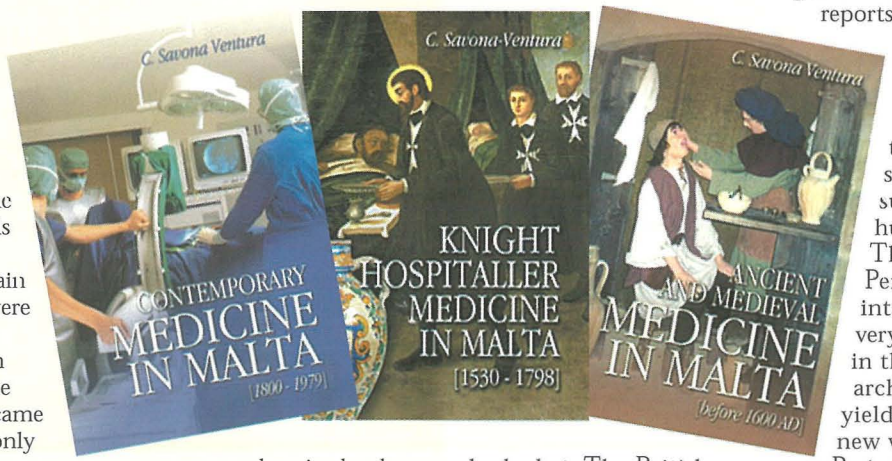
Interview with Charles Savona-Ventura

by Marika Azzopardi

Charles Savona-Ventura, is a man of medicine through and through. An appreciated specialist in the field of Obstetrics and Gynaecology, he is also the author of important books about medicine in Malta and this sheds light on his other passion – medical history. He tells TheSynapse something of his first steps in the realm of medicine.

"I qualified as a Medical Doctor from the University of Malta in 1979. I then proceeded to complete my two-year housemanship working in the major departments - medicine, surgery and obstetrics/gynaecology. During my first assignment in Obs-Gyn I confirmed my interest in that subject and elected to attempt to specialize. At the end of my statutory housemanship period, I applied to join the Obs-Gyn Department and was accepted. I passed for my Part I MRCOG examination in 1982 and eventually was selected to join the joint specialization program between Malta and Belgium which enabled me to ?polish' my expertise in Leuven, Belgium. I was accredited as a specialist from the Catholic University of Leuven in 1985. Afterwards I spent some time in Northern Ireland before sitting for the Part II MRCOG examination in 1986."

Dr Savona-Ventura admits he has always been interested in Melitensia and was specifically introduced to Maltese history in the early 1970s, during his MD course. His summer job as a 'courier' with students brought over to Malta to learn English through the NSTS, led him to attend a series of lectures discussing various aspects of Malta. "These served to indicate to me the richness of Maltese culture. This tied in with my then particular interest in natural history, including geology. My specific interest in medical history was stimulated by listening to lectures given by the late Dr Paul Cassar who used items of historical interest to illustrate his arguments in contemporary medical management."



However, these growing new interests had to be sidetracked whilst he was studying for his specialization but came to the fore again when the studies were completed. "In attempting to learn more about Maltese medical history, I came to realise that the only worthwhile comprehensive book available on the topic was dated 1964 and was unavailable. With increasing reading and researches in primary and secondary sources, I could fully appreciate the truth of the words of the 14th century surgeon Guy de Chauliac who said that, "We are like children standing on the shoulders of a giant, for we can see all that the giant can see, and a little more."

Whilst in Malta there are many medical practitioners who show a definite interest in medical history, only the occasional one contributes to the common knowledge of the subject. Dr Savona-Ventura laments how the subject is given no importance by the Faculty of Medicine at the University of Malta and feels it is high time for the introduction of a short module on the subject. "I would recommend a short module of say, twelve lectures, to be introduced in the curriculum of studies with maybe a long essay submission for assessment. There is a place also to appoint an honorary lecturer in the subject - a point muted by Dr Paul Cassar in the 1970s."

Amongst the books published by this researcher are a series of three very important publications which encompass the whole spectrum of Maltese medical history – *'Ancient and Medieval Medicine in Malta'*, *'Hospitaller Medicine in Malta'* and *'Contemporary Medicine in Malta'*. Asked about these literary contributions Dr Savona-Ventura explains, "I have written about all the various periods of our medical history ranging from prehistoric times to the present. These works have been presented in various books, monographs and papers. Every period has its own characteristics and interests. The Prehistory of Malta is characterised by the unique Temple Period and it is exciting to review the excavation reports and findings, and use the process of cognitive archaeology to interpret these in the light of man's struggle for survival against hunger and disease. The Hospitaller Period is also a rich interesting period, very well documented in the local archives - archives repeatedly yielding something new whenever they are looked at. The British Period of course is the best documented and accessible with detailed statistical data - the right tools for anyone interested in historical epidemiology. Learning history does help plan for the future. It has been said that "those who forget history will have to repeat it"."

Asked how much time is required in his study and research on medical history, Dr Savona-Ventura states that one cannot quantify time for carrying out study and research, especially since he looks upon his writing endeavours as a hobby to help him relax from the heavy clinical workload of hospital and private practice. "There are times when research work is lax and general, others when it is more directed and detailed. I have spent the last six years on very heavy detailed research in preparation for my last three comprehensive volumes on the Medical History of the Maltese Islands and one on the Order of St. Lazarus. At the moment, work is more relaxed - until a major project presents itself again."

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University of Malta

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"Doctor, Doctor – Medics in Movies a

Without a doubt the 20th century will be remembered for the birth of cinema and television. They played an important role in shaping our lives and cultures due to their growing popularity and now easy accessibility forever instilling in us a passion for screen entertainment.

by **Justin Camilleri**

The Medical soap opera

Up until the sixties most soap opera's storylines focused on the experiences of families in their homes e.g. Coronation Street, their interaction and relationships between different people living in a particular place.

General Hospital and Doctors both sought to change this. Their immense popularity spawned the medical soap opera, in which the hospital setting replaced the home or street, as the main centre for drama. Dr Kildare's viewership, as the prime time medical series and the soap opera family, were taken over by far more elaborate medical staff, where their hospital settings provided opportunities for the limitless introduction of new characters as hospital patients and personnel.

According to Robert C. Allens, speaking of soap opera, General Hospital and Doctors were the first to break the mould, with their introduction to controversial medical issues, such as incest, impotence, amnesia, illegitimacy and murder as a result of temporary insanity.[1]

In the 90s, we were introduced to the phenomenon of ER, which gave us a hardened realistic glimpse, at what happens in a busy emergency room, coupled with the fast, pacy storylines and the introduction of the first controversial African-American female medic, who contracts the HIV virus and is trying to come to terms with her diagnosis.

Over the pond, in the UK, Peak Practice, Holby City, West Way (BBC World Service Radio) and Doctors soon followed and there was such a large appeal for medical soap operas, that even non-medical soaps e.g. Heartbeat and Eastenders included doctors and nurses among their central characters.

In her research paper entitled Medical Education via the Mass Media, Fiona Kenny, a fourth year medical student from the University of Westminster, says that: "Health is important and relevant to everyone, whatever age, and it is therefore no surprise that so many medically related soap operas are now produced."[2]

She added: "All soap operas have characters experiencing concerns about their physical wellbeing and have the option of providing this combination of education and entertainment – a genre which has been classified as "edutainment."[2]

Kenny cites the example of the UK's soap opera Hollyoaks[2], which was congratulated by one of England's parliamentary members, for its success in raising awareness about the current, most common STD in the UK, which is Chlamydia.[3] The storyline follows Lisa, through her contraction of the disease and considered various social and medical issues that arise as a consequence of unprotected sex.

Facts and Fiction

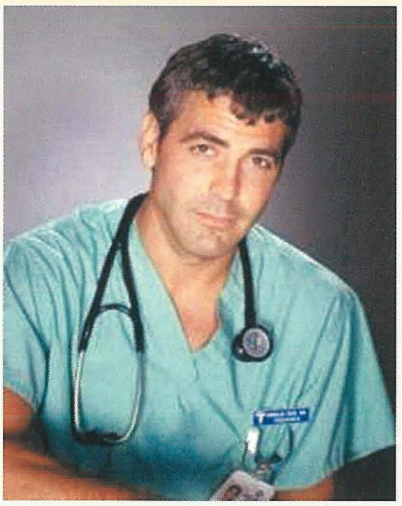
While some medical soap's storylines are successful at educating their audience, other medical soap writers, however find themselves falling into the trap of creating unrealistic TV dramas, which rely more on dramatising suspense rather than medical accuracy.

Dr Rob Hicks, general practitioner, journalist, and script adviser for the UK soap opera Doctors said: "What happens in medical dramas is incredibly uncommon in life... If it can happen, then it probably will."[2]

As a result, medical accuracy is being grossly discarded in favour of plot and character; this ensures a high turnout in viewership ratings on prime time television.

American medical soap operas have already been accused of painting "too rosy a picture" of coma. 8% of coma patients in soap operas die compared to the real life 50% of coma patients never recovering.[2]

Likewise when it comes to the big screen, writers and producers either exaggerate the coma or underestimate it. Dr Eelco Widjicks, found only two films – out of the 30 he reviewed, which portrayed well, the state of a comatose patient.[4] These are: Reversal of Fortune (1990) and the Dream life of Angels (1998).



The other 28 movies lacked an accurate depiction of a comatose patient and often showed 'miraculous awakenings', with no real long lasting effects on the patient's life.[4] Other flaws included a lack of feeding tubes, unrealistic muscle contractions, and no sign of a tracheotomy to aid breathing whilst comatose patients sustained a muscular, tanned and well groomed look.

These statistics are not reserved only to the way coma patients are depicted on the small screen. The television portrayal of cardiopulmonary resuscitation was also acknowledged to be producing unrealistic public expectations.

The repercussion of these portrayals is that they raise public hopes about the effectiveness of medical treatments and the optimistic outcomes of disease, causing unnecessary emotional grievance both for the relatives and for the doctors concerned.

Bureaucracy in the healthcare system

The 90s doctor's movies conveyed powerful messages of inefficient healthcare systems, which hinder patient care, and the ugly reality of helping the medically insured patient as opposed to saving lives. In Extreme Measures, Hugh Grant is confronted by a hospital administrator about the costs of multiple lab tests on a patient who died mysteriously:

"Who the hell is Claude Menkins?"
"It's was, I'm afraid he died."
"Tell me he had insurance."
"No. That's not at all likely."

Where are thou?"
nd Television – Part II

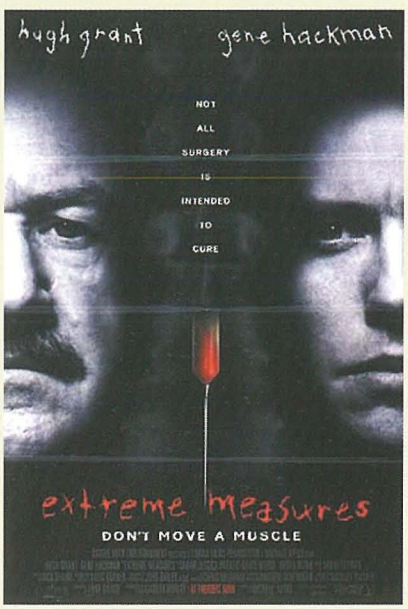


"Ok. Let's get it into your head. This is not England; this is not the National Royal Shakespeare taxpayers pick up the tab health care system. OK somebody has to pay for this."[5]

Bad hospital management came to the fore in Article 99[6], starring Kiefer Sutherland where a group of doctors in a soldier veteran's hospital, must contend with their hopeless situation: too many patients and not enough beds. The main cause of their problems is bureaucratic belt-tightening by the hospital administrators. Despite the obstacles the doctors are determined to give the best service they can, even if that means defying the orders of management and performing unauthorized operations.

The powerful, poignant And the Band played on provided a lot of insight and social commentary on the discovery of the Aids epidemic. The movie portrayed a cast of well meaning, dedicated doctors who were willing to do anything to expose the deadly Aids epidemic, going against politicians' bureaucratic policies.

Last but not least, The Doctor based on the autobiographical real life story entitled A taste of My Own Medicine: When the Doctor Becomes the Patient by Dr Edward Rosenbaum, MD starring William Hurt, this time examines the doctor becoming the patient. An arrogant heart surgeon finds himself diagnosed with cancer; seeing the system from the other side which is mechanised, unsympathetic where the patient's comfort is the least concern, the doctor goes through a voyage of transformation and self discovery.



Forensic Medicine

The basis for screen forensics dates to Sherlock Holmes' fifty-six short stories and four novels, written by Arthur Conan Doyle. Doyle's creation, based on his mentor at the University of Edinburgh, the gifted surgeon and forensic detective Joseph Bell, was eventually successfully brought to the big screen and television.

Doyle's fictional character was the original forensic expert dabbling in chemical experiments, as he used to take findings from a crime scene, for example, cigar ashes and deduce the person who smoked it, therefore making important findings as to who committed the crime. In fact his fondness and contributions to chemistry were so appreciated that in 2002 Holmes was inducted as an honorary fellow of the Royal Society of Chemistry – the only fictional character so honoured – in appreciation of the contributions to forensic investigation.[7]

The 1970s gave us Quincy, M.E, starring Jack Klugman. The series was catalyst in depicting a Medical Examiner investigating, instead of a police officer, whereas before the pathologist was the last person to be consulted; his laboratory findings proved to be invaluable, in solving the intricate web of crimes. Quincy made it a point to highlight the bickering conflicts between the coroner and the police, both trying desperately to solve a crime and trying to prove that their way is right. Although times have changed some medics may beg to differ.

For a long time, depictions of bodily organs during a post mortem were deemed unfit to be seen on television. This changed in 1996, with the brilliant Silent Witness; for the first time a female pathologist was shown performing a post mortem in considerable raw detail, with the pathologist taking out organs from the corpse, weighing and dissecting them.

The taboo was lifted once and for all, on the way dead bodies were graphically depicted on television, in 2000 with CSI. Crime Scene Investigation changed all of this, with its innovative cinematography that shows clearly, detailed close up sequences of how microscopic DNA traces and fingerprints manage to penetrate bodily organs and murder weapons, giving solid evidence to the forensic investigative team as to who committed the crimes.

CSI was ingenious in its approach, as it broadened the public's perception on forensics, with its main character, Gil Grissom (William Petersen), hailed by many as the 21st century's answer to Sherlock Holmes. Grissom's character nicknamed "The Bug Man", was educational in its approach to forensics by introducing the study of Entomology (the study of insects), to the general public in a simple manner, thus making the different branches of Forensic Medicine more accessible to the audience.

If Quincy introduced the Medical Examiner onscreen and set the standard for the way Medical Examiners are depicted, CSI went much further in showing how times changed since the 70s, as the Medical coroner was not just confined to the morgue, producing autopsies that determine the time, cause and manner of the victim's death. In CSI, the medical coroner plays a pivotal role in the investigation, working alongside the police and fellow Crime Scene Investigators, proving that the answer for the unusual circumstances behind the death is found first in the field, then in the morgue.

CSI's Medical Examiner, Dr Al Robbins played by Robert David Hall, who in real life has two prosthetic legs, was very instrumental in portraying that disability should not hinder a talented pathologist from performing his vocation.

The series has so influenced the public's perspective on forensic medicine, that faculties of forensic investigative science in universities in the US and Europe, have reported an increase in the number of student applications.[8] The rise in students studying forensic medicine has been dubbed "the CSI effect". Even forensic departments are using the show as a marketing ploy, making it a point to show images of the barricade yellow tape stating; "Crime scene: Do not cross" on their websites while their prospectuses emulate the CSI, first season DVD cover.

Despite CSI being praised by critics and viewers alike, this is not to say that the show is flawless or indeed real. At the end of the day CSI is an entertaining show and it's far from reality. This is shown with the unrealistic speed at which the actors are able to identify, apprehend and prosecute the perpetrators. In the real world, unlike television, where the crime must be solved by the end of the hour, crimes are solved with slow, deliberate and methodical steps. Dr Jennifer Thompson, program director of studies of the forensic science program at the University of Nevada stated that, "CSI is getting more people interested in the science, which is fantastic."[9] However she also added that, "The shows themselves are idealized versions of the field, they've got wonderful technology that just isn't available in real life, and everything gets solved in a neat and tidy hour!"

It was inevitable that CSI's forensic innovative cinematography and Holmesian deduction would be transposed to a hospital diagnostic setting in House, M.D.

In House, computer wizardry has substituted the bullet for the injection, penetrating bodily organs, both holding the same visual effect.

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Invertebrates in the medical service of man:
Part 1 – The Biotherapeutic Worms

by **Charles Savona-Ventura** *MD DScMed FRCOG AccrCOG MRCPI*
Professor of Obstetrics & Gynaecology, Faculty of Medicine & Surgery, University of Malta

The invertebrates have long received particular attention from the medical profession. Their medical importance lies primarily in their role as parasites or harbingers of disease conditions, and in the potential toxic stings or bites of some species. While the faunal diversity of the Maltese Islands is limited because of the restricted ecological diversity, a number of invertebrate species present in the Maltese Islands and in the surrounding sea have medical significance resulting from their parasitic or toxic capabilities. These species have been previously reviewed.[1,2]

While the medical import of the invertebrates remains generally an adverse one, there are a number of invertebrate species which have in the past and in present times been utilised to serve the medical needs of mankind giving rise to biotherapeutic options in the management of disease. Invertebrates which have contributed to biotherapy include members of the worms and insects.

Phylum ANNELIDA; Class: HIRUDINEA
The Medicinal leech – Hirudo medicinalis

The humoral aetiology of disease introduced by Galen during the Classical Age considered that disease was due to alterations in the composition of these humors. Thus medical therapy aimed to restore the balance of these humors; thus venesection was a primary therapeutic option in a large majority of disease states. Venesection generally took the form of using a knife or lancet to open a vein, but a gentler and more desirable form of bleeding was to put a leech on the affected part and to let the animal engorge itself with the bad blood thought to dwell below the point of application. Leeches have been used medically for centuries; in Europe the use of leeches to drain off blood reached its height of popularity in the 19th century and persisted into the 20th century. Its use decreased pari passu with the introduction of effective pharmaceutical tools. The practice of bloodletting in the Maltese Islands

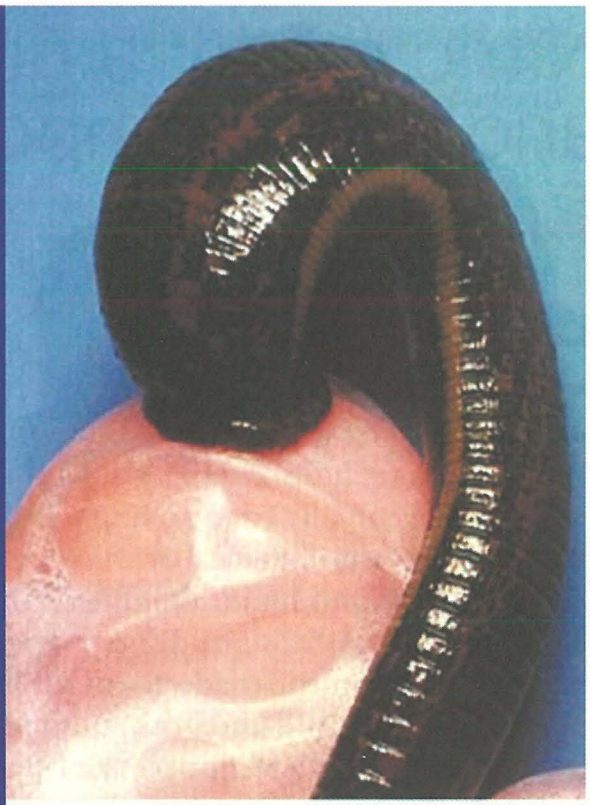


Figure 1: Hirudo medicinalis

dates at least to about the 2nd century AD as evidence by depictions on a tomb-slab from the late Roman/Palaeo-Christian period which depicts a set of surgical instruments that include two Roman cupping vessels. The gentler form of bloodletting through the use of leeches was also practiced in Malta. The first traced reference to the use of leeches in relation to the Maltese Islands dates to the late 16th century during the Plague epidemic that ravaged the Maltese Islands during 1592-93. centuryThe use of leeches became increasingly fashionable in Europe during the 19th century. The situation was similar in Malta, where medical practice shifted from the French school to the British school. By 1840 the Civil Hospitals in the Maltese Islands were using 2600 leeches per month. The smaller hospital – Santo Spirito Hospital – with an average population of twenty-five patients, was in 1851 using 300 leeches per month. Instructions about the application and care of leeches were given to the nursing and midwifery personnel during the late 19th and early 20th century. The use of medicinal leeches in Malta continued throughout the first half of the 20th century. The last reported use was in the late 1960s to manage severe congestive heart failure in an elderly patient.[3]
a therapeutic option is now rarely considered, and situations where it is considered, preference is given to the formal collection of blood to use in cases of need. Leeches no longer play a role in venesection, however in recent years the useful medicinal properties of the blood-sucking leech are again being investigated, particularly in the field of plastic surgery. The salivary glands of leeches produce a cornucopia of pharmacologically active substances, including the anticoagulant hirudin (identified in 1884), an antihistamine, proteases, and possibly an anaesthetic and an antibiotic. In the 1980s leeches again "crawled out of their therapeutic closet" when plastic surgeons found its local anticoagulant and bloodletting properties useful for relieving venous congestion in grafts and transplants.[4] Failure of adequate venous return from a graft reduces blood supply, causing tissue necrosis. Placing a leech on the congested skin flap, finger, or other compromised area removes the congested blood and enables the graft to be salvaged. Leeches are currently used during postoperative care of reimplanted fingers, skin grafts, and breast reconstructions. Fresh leeches are applied as required for several days or weeks until the venous congestion is relieved and normal venous drainage of the graft has had time to develop. Other described uses for the medicinal leech include haematomas, purpura fulminans, paronychia, and even vascular congestion of the penis.

continues on page 18

Update on Avian Influenza in 2006

by **Tanya Melillo Fenech** *MD MSc*
Principal Medical Officer at Disease Surveillance Unit, Department of Public Health

In the first quarter of 2006, bird flu panic was in full swing: The French feared for their foie gras, the Swiss locked their chickens indoors, and Americans enlisted prison inmates in Alaska to help spot infected wild birds.

The H5N1 virus – previously confined to South East Asia – was striking birds in places as diverse as Germany, Egypt, and Nigeria, and a flu pandemic seemed inevitable. Then the virus went quiet. Except for a steady stream of human cases in Indonesia, the current flu epicenter, the past year's worries about a catastrophic global outbreak largely disappeared.

Part of the explanation may be seasonal. Bird flu tends to be most active in the colder months, as the virus survives longer at low temperatures.

Some experts suspect poultry vaccination has, paradoxically, complicated detection. Vaccination reduces the amount of virus circulating, but low levels of the virus may still be causing outbreaks without the obvious signs of dying birds, making it harder to see what is happening in animals and humans.

While the pandemic has not materialized, experts say it's too early to relax.

Flu viruses constantly evolve, so the mere appearance of mutations is not enough to raise alarm. The key is to identify which mutations are the most worrisome.

In May 2006, on Sumatra island in Indonesia, a cluster of 8 cases was identified, 6 of whom died. Luckily, the Sumatra cluster was confined to a single family. Though human-to-human transmission occurred as it has in a handful of other cases – the virus did not adapt enough to become easily infectious.

Scientists are bracing themselves for increased bird flu activity in the winter; there are no predictions about where it might appear next.

Since 2007, there has been identified five human cases in Indonesia with four deaths and one case in Egypt. Diseased birds were also reported in South Korea, Hong Kong, Nigeria and Thailand.

Total number of reported human cases has risen to 264 with 158 deaths (as of 1/12/06) with a steady high mortality rate of 60 % and affecting age groups below 40 years of age.

The H5N1 viruses have been around since 1990's and it might be tempting to conclude that if they were going to proceed to form or contribute to a pandemic strain, they would have done so by now. However, it should be remembered that the avian influenza virus which contributed to the 1918-19 'Spanish Influenza' H1N1 pandemic strain had been around for some years before it became part of a virus that could efficiently transmit between humans.

Evidence has accumulated suggesting that both poultry and wild bird populations have played a significant role in the recent virus evolution and spread. The EU animal experts have tightened rules for the import of live captive birds as part of the block's strategy to fight bird flu.

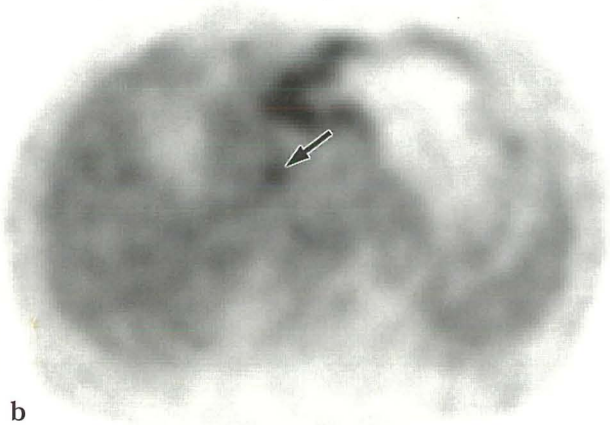
Latest update on Oseltamivir

The US Food and Drug Administration (FDA) and Roche Laboratories Inc have notified healthcare professionals in December 2006 regarding safety labeling revisions for oseltamivir phosphate (Tamiflu capsules and suspension) that warn of the potential risk for neuropsychiatric events associated with its use.

The warning suggests that that patients with influenza receiving oseltamivir, particularly children, may be at increased risk for self-injury and delirium.

Stomach Cancer: Preoperative Staging

continued from page 2



b

Figure 4b: *Axial CT scan demonstrates an enlarged lymph node (arrowhead) in the hepatoduodenal ligament adjacent to the proper hepatic artery (arrow), which are barely visible on axial PET scans.*

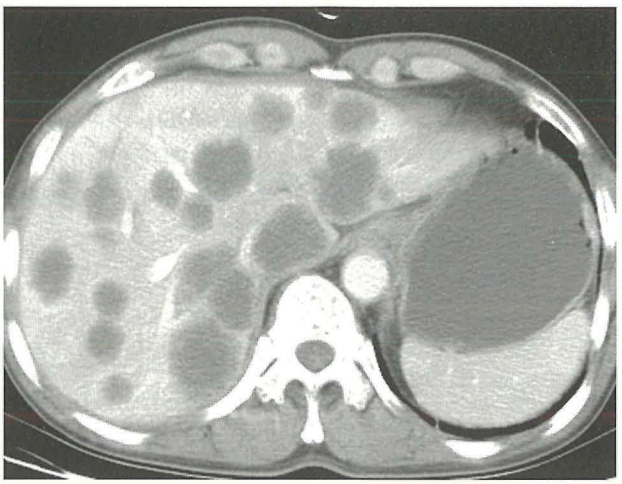


Figure 5: *Multiple hepatic metastases in a 58-year-old man with stomach cancer.*

Detection of lymph node metastases in compartments III-IV can change the extent of lymph node dissection or may preclude unnecessary surgery. Metastases at these sites would be easier to identify at PET because they are located away from the primary lesion.

Solid organ metastasis is uncommon in primary gastric cancers at the time of initial diagnosis, but its detection is important in treatment planning. Hematogenous metastases from gastric carcinoma most commonly involve the liver because the stomach is drained by the portal vein (Figure 5). Other less common sites of hematogenous spread include the lungs, adrenal glands, and skeleton. In the case of ovarian metastasis (Krukenberg tumor), three possible pathways have been considered: peritoneal dissemination, lymphatic spread, and hematogenous spread. CT readily detects distant solid organ metastasis. Peritoneal metastases are also readily seen by CT, while FDG PET is helpful when CT is equivocal.

CT is the imaging modality of choice for the preoperative staging of gastric cancer and the follow-up of affected patients. FDG PET is a useful adjunct for the detection of distant metastases and metastases in non-enlarged lymph nodes. In addition, FDG PET may play a valuable role in distinguishing residual cancer from scar tissue after therapy.

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Skin Grafting

continued from page 6

Distant Flaps are constructed from areas of the body specifically containing a named blood supply.

Distant Flaps can be either **Pedicle** or **Free.**

A **Pedicle Flap** is constructed by raising the tissues needed, leaving them attached to a small pedicle containing the supplying vessels and transplanting them on to the recipient area that may have lost skin, fat, muscle and bone. The blood supply remains intact at the donor site and is not cut loose until the new blood supply has completely developed at the recipient site.

Free Flaps are used when the recipient area is further away from the donor site. Also called Microvascular Free flap, this involves detaching and reattaching the tissue and its blood vessels from one site to another. Microsurgery is used to attach the blood vessels.

Nursing care is very important in this process. Apart from helping the patient in every aspect, great care and observation is needed to prevent any undue pressure occurring over the Flap and its Pedicle. Preservation of the circulation to the Flap is vital. Such care must be continued up to at least six weeks. Afterwards, moisturizing creams are applied on both the grafted area and the donor site till need be. Both areas are protected from direct exposure to sunlight.

During the first couple of months the areas involved look a bit like a patchwork which may be depressed or raised. It is never exactly similar to surrounding normal skin, but the appearance definitely improves with time.

Acknowledgements

Mr Joseph Briffa, Consultant Plastic and Reconstructive Surgeon.

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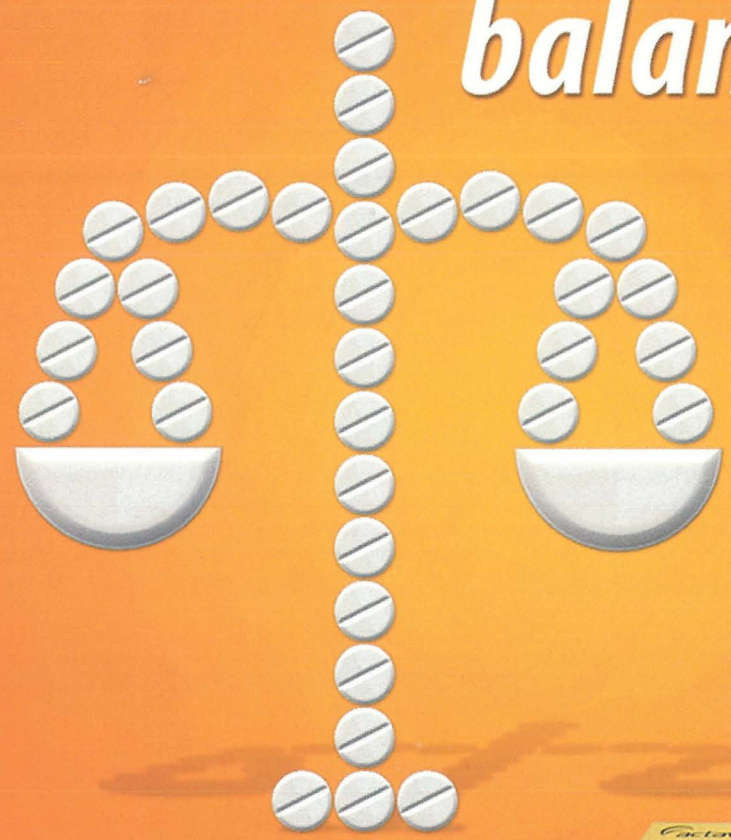
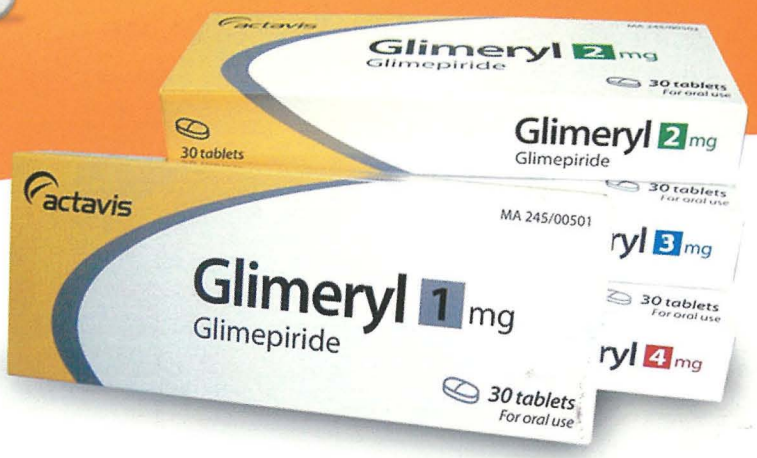
Sweet balance





Glimeryl

Glimepiride 1mg, 2mg, 3mg, 4mg tablets

Trade name: Glimeryl. **Composition:** Glimepiride 1mg, 2mg, 3mg, 4mg. **Therapeutic indications:** Treatment of Type 2 diabetes mellitus, when diet, physical exercise and weight reduction alone are not adequate. **Posology and method of administration:** The starting dose is 1 mg glimepiride per day. If good control is achieved this dosage should be used for maintenance therapy. If control is unsatisfactory the dosage should be increased, based on the glycaemic control, in a stepwise manner with an interval of about 1 to 2 weeks between each step, to 2mg, 3mg or 4 mg glimepiride per day. The maximum recommended dose is 6 mg glimepiride per day. Concomitant glimepiride therapy may be initiated in patients not adequately controlled with the maximum daily dose of metformin. While maintaining the metformin dose, glimepiride therapy is started with a low dose, and is then titrated up to the maximum daily dose depending on the desired level of metabolic control. In patients not adequately controlled with the maximum daily dose of Glimeryl, concomitant insulin therapy may be initiated if necessary. While maintaining the glimepiride dose, insulin treatment is started at low dose and titrated up depending on the desired level of metabolic control. It is recommended that this dose be taken shortly before or during a substantial breakfast. If no breakfast is taken, the dose should be taken shortly before or during the first main meal. During the course of treatment, there is an improvement in the control of diabetes due to higher insulin sensitivity. Thus, glimepiride requirements may fall. To avoid hypoglycaemia, timely dose reduction or cessation of therapy must therefore be considered. Change in dosage may especially be necessary, if there are changes in the weight or life style of the patient, or other factors that contribute to the risk of hypo-or hyperglycaemia. **Contraindications:** Insulin dependent diabetes, diabetic coma, ketoacidosis, severe renal and hepatic disease, known hypersensitivity to glimepiride, other sulphonylureas or other sulphonamides or hypersensitivity to any of the excipients in the tablet. **Special warnings and precautions for use:** When meals are taken at irregular hours and especially if meals are omitted, treatment with Glimeryl may lead to hypoglycaemia. Treatment with Glimeryl requires regular monitoring of glucose levels in blood and urine. In addition, determination of the amount of glycosylated haemoglobin is recommended. Regular haematological monitoring (especially leucocytes and thrombocytes) and hepatic monitoring are required during treatment with Glimeryl. Patients with rare hereditary problems such as galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine. **Interactions:** Concomitant administration of Glimeryl with other medicines may result in an undesired increase or decrease in the hypoglycaemic effect of glimepiride. Glimepiride is metabolised by cytochrome P450 2C9 (CYP2C9). The metabolism is known to be affected by concomitant administration of CYP2C9 inducers. Concomitant administration of the following medicines may enhance the hypoglycaemic effect of glimepiride: phenylbutazone, azapropazone and oxyfenbutazone, sulphinpyrazone, insulin and oral antidiabetics, certain long acting sulphonamides, metformin, tetracyclines, salicylates and p - amino- salicylic acid, MAO – inhibitors, anabolic steroids and male sex hormones, quinolones, chloramphenicol, probenecid, coumarin anticoagulants, miconazole, phenfluramine, pentoxifylline (high parenteral doses) fibrates, tritoqualine, ACE inhibitors, fluconazole, fluoxetine, allopurinol, sympatholytics cyclo-, tro- and iphosphamides. The hypoglycaemic effect of glimepiride is reduced thereby resulting in a reduced metabolic control if Glimeryl is administered concurrently with other medicines containing the following active ingredients: oestrogens and progestagens, saluretics, thiazide diuretics, thyroid stimulating agents, glucocorticoids, phenothiazine derivatives, chlorpromazine, adrenaline and sympathicomimetics, nicotinic acid (high doses) and nicotinic acid derivatives, laxatives (long term use), phenytoin, diazoxide, glucagon, barbiturates and rifampicin, acetozolamide. H_2 antagonists, beta-blockers, clonidine and reserpine may either enhance or weaken the blood glucose- lowering effect. During treatment with sympatholytic drugs such as beta-blockers, clonidine, guanethidine and reserpine, the signs of adrenergic counter regulation to hypoglycaemia may be reduced or absent. Alcohol intake may potentiate or weaken the hypoglycaemic action of glimepiride in an unpredictable fashion. Glimepiride may either potentiate or weaken the effects of coumarin derivatives. **Pregnancy and lactation:** Pregnancy: Abnormal blood glucose levels during pregnancy are associated with a higher incidence of congenital abnormalities and perinatal mortality. So the blood glucose level must be closely monitored during pregnancy in order to avoid the teratogenic risk. The use of insulin is required under such circumstances. There are no adequate data detailing the use of glimepiride in pregnant women. Animal studies have shown reproductive toxicity which was probably related to the pharmacologic action (hypoglycaemia) of glimepiride. Consequently, glimepiride should not be used throughout pregnancy. If a patient plans to become pregnant or if a pregnancy is detected during treatment with glimepiride, the treatment should be switched as soon as possible to insulin therapy. Lactation: It is unknown whether the drug is excreted in human milk. Glimepiride is excreted in rat milk. As other sulfonylureas are excreted in human milk and because there is a risk of hypoglycaemia in nursing infants, it is unadvisable to breast-feed during treatment with glimepiride. **Effects on ability to drive and use machines:** The patient's ability to concentrate and react may be impaired as a result of hypoglycaemia or hyperglycaemia or as a result of side effects such as visual impairment. This may constitute a risk in situations where these abilities are of special importance (e.g. driving a car or operating machinery). **Undesirable effects:** *Uncommon (>1/1.000 and <1/100):* Visual disturbances, Allergic skin reactions such as pruritus, *rash, urticaria. Rare (>1/10.000 and <1/1.000):* Changes in the blood picture, including: moderate to severe thrombocytopenia, leukopenia, erythrocytopenia, granulocytopenia, agranulocytosis, haemolytic anaemia, pancytopenia, increased hepatic enzymes. *Very rare (<1/10.000, incl. isolated reports):* Mild hypersensitivity reactions may develop to severe reactions with dyspnoea, fall in blood pressure and possibly shock, allergic vasculitis, cross allergy with sulfunylureas, sulphonamide and related substances, hypoglycaemic reactions, gastrointestinal discomforts such as nausea, vomiting, diarrhoea, epigastric pressure or fullness and abdominal pain, hepatic impairment e.g. with cholestasis and icterus, hepatitis, photosensitivity, drop in serum sodium. **Marketing Authorisation Holder:** Actavis Ltd. B16, Bulebel Industrial Estate Zejtun, ZTN 08 Malta.

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Interview with Charles Savona-Ventura

continued from page 10

Studying medical history intensifies the fact that present day practitioners vividly depend on the thoughts and research of those who came before us, helping in the understanding of why the origins of modern-day practices are so ingrained in modern practice. Dr Savona Ventura cites the 18th century German Poet JohannWolfgang von Goethe who said that "It is only when we know very little about a subject that we are quite sure; and with knowledge, doubt arises and grows."

What about indigenous herbs? Many of today's medications have origins in plant products. "The 19th century saw a rise in the knowledge of chemistry - a rise that led to the pharmaceutical production of medicine - first as plant extracts, later as chemically produced products. The advantage of chemical production is the purity and standardization of dosage. There were few indigenous ? material medica' from Malta used before the advent of pharmaceutical agents – these were ?St. Paul's rock' supposedly useful against poison and fever, and the plant from the Fungus Rock supposedly useful against haemorrhage. These are definitely not used today in any form."

As a final question to this authentic researcher, Synapse asks, "If a foreigner had to ask you to describe Maltese medical history in a few words – how would you describe it?" "In spite of Malta being such a small island, it has a very rich medical history culture. Also that Maltese practitioners have significantly contributed to the general medical knowledge of their times. Examples include: Prof. Barth who was appointed as the first ophthalmological professor in Europe; the researches by animal experimentation of Surgeon MA Grima; the work of Sir T. Zammit in Brucellosis; and other contributions made by other Maltese specialists during the twentieth century."

Invertebrates in the medical service of man:
Part 1 – The Biotherapeutic Worms

continued from page 14

Figure 2: *Bonellia viridis*

Phylum ECHIUROIDA; Class: BONELLIIDAE
The Spoonworm – Bonellia viridis

This species is a marine worm which is found in crevices and holes on the seabed, from where its proboscis projects, feeling around for food. Its beneficial role in medicine has yet to be determined but studies carried out by the Chemistry Department of the University of Malta have shown that the animal contains a substance named bonellin which causes haemolysis of erythrocytes, besides exhibiting other in vitro bioactivity such as depressing oxygen uptake of spermatozoa.[5]

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"Doctor, Doctor – Where are thou?" Medics in Movies and Television – Part II

When House was shown on television, the producers and medical consultants made it a point to do away with the simplicities of the compassionate Dr Kildare. Instead we were treated to the most eccentric and sarcastic (that might be mistakenly British!!) medical doctor ever presented on television. Dr Gregory House played by Hugh Laurie is a non conformist, who despises wearing his lab coat, no nonsense medical doctor with no time to waste, who leads a group of young physicians in the department of diagnostic medicine at a teaching hospital in New Jersey.

The show is very questionable as to how in real life hospitals put up with such doctors without being dismissed on ethical grounds. What's admirable in this medical series is that for once we are not presented with a Clooney heart throb for a doctor, but an average looking, unshaven medical genius with a disability in his foot that is closer to home.

House and his team solve medical mysteries with the flair and resourcefulness of CSI's forensic investigators, showing how controversially, the head of the diagnostics department, prefers to interact with diseases rather than patients and their feelings. This often leads to the questioning of whether his medical methods are orthodox, usually resulting in clashes with his medical team and hospital administration.

In his article in The New York Times, Dr Sanjeep Jauhar, MD rants how his wife, a general internist, finds the show absurdly unrealistic, as it portrays a world where doctors have time to solve problems.[10]

Jauhar adds, "Young doctors I work with today seem disengaged and mentally fatigued, with patient rosters of fifteen or more, they are preoccupied with getting their work done. Interesting cases tend to generate anxiety, not excitement; mysteries are, by and large, abhorred."[10]

Without a doubt doctors' movies and television series will continue to be produced, as they are living evidence of the infinite fascination with the medical profession and are a proof of the ever growing public consciousness on health issues. They can be humourous (Carry on Doctor, The Millionaires), thought provoking (The Doctor, Article 99, CSI) or informative (And the Band played on) that make the wonders of medicine comprehendible to everyday folk.

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