The

Scottish Society

Of the

History of Medicine

(Founded April, 1948)

REPORT OF

PROCEEDINGS

SESSION 2018-19 and 2019-2020

The Scottish Society of the History of Medicine

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Report of Proceedings

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THE SEVENTIETH ANNUAL GENERAL MEETING

The Seventieth Annual General Meeting was held at the Village Hotel, Crewe Road, Edinburgh on Saturday 1 December 2018. The President, Dr Niall Finlayson, presented his report as did the Secretary, Mr Andreas Demetriades and the Treasurer, Dr Malcolm Kinnear. The Secretary and Treasurer were invited to stand for another term of office and both agreed to serve. Three Council members, Dr Geoffrey Hooper, Dr Gordon Lowe and Dr Neil MacGillivray, were co-opted to the Council for a further year.

THE TWO HUNDRED AND TWELFTH ORDINARY MEETING

The Two Hundred and Twelfth Ordinary Meeting was held at the Village Hotel, Crewe Road, Edinburgh on Saturday 1 December 2018, directly following the Seventieth AGM. There were three papers, Professor Tony Butler talked on Harold Ridley and Cataract Surgery, Dr Allan Beveridge took as his subject Sir Alexander Morrison and the Physiognomy of Mental Diseases and Mrs Rosemary Gold talked on Dr Andrew Gold - An Inspiration.

Dr Beveridge's paper has been published in the Journal of the Royal College of Physicians of Edinburgh and can be accessed at
https://www.rcpe.ac.uk/college/journal/sir-alexander-morison-and-physiognomy-mental-diseases-part-1#pdf

HAROLD RIDLEY AND INTRAOCULAR LENS REPLACEMENT

Blindness is a great burden to the sufferer and his own blindness moved John Milton to describe it in verse:

When I consider how my light is spent,
E're half my days, in this dark world and wide

And that one Talent which is death to hide
Lodg'd with me useless

And yet it is, for many people, a quite natural process, as ageing clouds the lens of the eye. If this is severe enough it can cause blindness or near blindness.

The ancient Indian surgeon Suśruta (dates uncertain) described a technique (couching) for destroying the clouded lens so that light could once more reach the retina. With removal of the lens, of course, little focussing is possible but the sufferer has enough sight to move around. Wearing very thick and unsightly spectacles allows more focussing but there is distortion. In the most primitive form of couching the dislodged lens lies at the bottom of the eye indefinitely. As an alternative, the lens can be destroyed and the debris is slowly removed. The technique was refined by European surgeons in the 18th century, particularly the Frenchman Jacques Daviel (1696-1762). Although better than blindness, couching did not really restore sight, but it continued to be used, with refinements, up to the 1970s. Harold Ridley (1906-2001) was the man who changed the situation dramatically by introducing a procedure that replaced the clouded lens rather than merely remove it.

Harold Ridley was born in Kibworth, Leicestershire and educated at Charterhouse School before entering Cambridge University in 1924. He completed his medical training at St Thomas's Hospital in London. He was drawn to ophthalmology and trained at Moorfields Eye Hospital but his career was interrupted by WW2 and in 1941 he joined the RAMC. During his war service he was stationed in the Gold Coast (now Ghana) and India and studied onchocerciasis (river blindness), the eradication of which is now under way. With the cessation of hostilities, he returned to St Thomas's, where he routinely performed intraocular lens extraction. He was demonstrating this in front of a group of medical students when one of them (named Stephen Perry) casually remarked that it was a pity you could not replace the faulty lens with an artificial one. Such a replacement must have been considered before but there was a deeply ingrained belief within the medical profession that any foreign material inserted into the eye would ultimately be rejected and could damage the eye irreparably. But Ridley did not forget Perry's remark for he had noted, during his war experience, that splinters of Perspex from the canopy of the pilot's cockpit in planes that had crashed remained in the pilot's eye without rejection. He noted this effect in some detail for one particular pilot, Gordon Cleaver of 601 Squadron. In view of this, Ridley wondered whether it would be possible to replace the faulty lens with one made of Perspex. He mulled this over and eventually decided to try it. He did not get permission or even discuss the matter with his colleagues as he knew he would be scorned, so strong was the belief that foreign matter would be rejected.

On a grey afternoon in November 1949, he operated on a 45-year-old nurse, Elizabeth A, who had a total cataract of one eye. With her permission, he replaced

the faulty lens with an acrylic one. He knew he could claim success only after a long wait in case the acrylic lens was eventually rejected and so nothing was published in the medical press about the operation. However, it appeared to be successful and he did a few more replacements and asked the patients to return for a check-up after some months. One patient mistakenly made an appointment with another ophthalmologist of the same name (Frederick Ridley). When he examined the eye, he was astonished with what he saw and freely discussed it with his colleagues. So Harold Ridley's secret was out but caused little stir until the work was presented at the Oxford Ophthalmological Congress in July 1951. Harold Ridley took with him two patients who had had the operation and invited the audience to examine them. In the audience was Britain's leading ophthalmologist Sir Stewart Duke-Elder (1898-1978). Born in the Free Church manse of the village of Tealing just north of Dundee, he was educated at Morgan Academy and the University of St Andrews. His principal activity was as an educator and he wrote the multi-volume *Textbook of Ophthalmology* and *System of Ophthalmology*. Few ophthalmologists throughout the world were not indebted to him. He did little surgery himself; that was undertaken by his colleague Sir Allen Goldsmith, an extremely gifted practitioner. When Sir Stewart heard what Harold Ridley had to say at the conference, he was outraged and refused to examine the patients. Many of the delegates sided with him and hard words were used to describe Ridley's 'unethical and irresponsible' experiments. A foreign object in the eye would inevitably cause sympathetic ophthalmia and malignant disease, so it was claimed.

Harold Ridley was greatly discouraged by the reaction and only a few more operations were executed over the next 20 years. In the 1970s there was a revival of interest and it was ascertained that, in general, the acrylic lens was not rejected over a 20-year period. Since then, with many refinements to the technique, insertion of an acrylic lens following cataract surgery has become routine outpatient treatment. It is estimated that eight million such operations took place in the year 2000. In countries with few hospitals a mobile clinic is used. Harold Ridley's 'outrageous' experiment has proved to be of inestimable benefit to humankind. Why there was so much opposition initially is difficult to understand fully but it illustrates the power of received wisdom. Such wisdom is questioned only by people of courage or of foolishness. Sir Harold Ridley was one of the former and there are people all over the world who owe him a debt of gratitude.

DR ANDREW GOLD – AN INSPIRATION

Thank you for inviting me and also for the excellent lunch!
I am going to tell you about my father-in-law Dr Andrew Gold, a man who, very sadly, I never met, but who undoubtedly has been an inspiration on my life and that of my family.

My husband, Dr Herbert Gold, was a General Practitioner for 30 years in Bruntsfield, Edinburgh.

After his death two years ago, I started going through the various certificates, letters and memorabilia which we inherited from his mother and I have enjoyed researching his father's life and work.

Fig 1 Dr Andrew Gold

Andrew Gold (Fig 1), was born in Lanarkshire in October 1889, the eldest of five children.
His father had a small engineering business in Larkhall and was responsible for cutting the roadways into mines to allow miners access to the coal seams. Andrew attended Larkhall Academy and I have a Certificate from the *Scotch* Education Department which reads
"This is to Certify that Andrew Gold, residing at Larkhall and presently attending Academy School, has passed the prescribed Examination conducted by one of His Majesty's Inspectors of Schools, who has authorised me to grant him this Certificate of ability to read and write, and of a knowledge of Elementary Arithmetic, which now frees the said Scholar from further Attendance at School."
It is dated December 1901, when Andrew was 12 years old.

However, he continued to attend school, as the following April he was awarded a Merit Certificate saying that *"he has shown thorough proficiency in Reading, Writing, Arithmetic and English and has received efficient instruction in an approved curriculum of studies embracing: Nature Knowledge, Geography and British History"*.

The following year, when he was just 14, his father died at the age of 57 and he had to leave school and start work to help support the family. He was employed by Mr Bruce, a Chemist in Larkhall and I believe that his first pay packet went to buy his mother a set of false teeth!

While continuing to work, he began to study Pharmacy at evening classes and in time he qualified as a full Member of the Pharmaceutical Society of Great Britain. After 4 years, Dr Alex Morrison, the local Doctor, wrote him a reference
"I have much pleasure in testifying to the favourable opinion I have formed of Mr Andrew Gold whom I have known from his childhood. He has been for close on four years with Mr Bruce, Chemist of this town, and during that time I have come into daily contact with him.
I have always found him very attentive to his duties and a smart and careful dispenser. He has latterly taken charge of Mr Bruce's shop when the latter was engaged at his other shop or away from home.
Mr Gold is a young man of excellent moral character, being strictly honest, truthful and conscientious."

After some time working as a pharmacist, he decided to set his sights on a medical career. He entered the Faculty of Medicine in Glasgow and was awarded numerous First-Class Certificates in Chemistry, Medical Physics and Clinical Surgery. He gained experience in Glasgow from a number of positions including Casualty Medical Officer at the Glasgow Royal Infirmary and as the House Surgeon at the Glasgow Eye Infirmary.
One Surgeon wrote of him:
"Not only did Dr Gold fulfil in a conscientious manner all the duties required of him in respect of the sick, but he was most useful in the way in which all observations of importance were recorded. And in the after-treatment of operation cases he was both well informed and sympathetic in all things concerning the welfare of the patient.
He was at all times a pleasant and obliging colleague, well up in the work of his profession and endowed with common sense".

In 1920, at the age of 30, he was awarded the conjoint Certificate, the triple qualification from the Royal College of Surgeons of Edinburgh, the Royal College of Physicians of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow (Fig 2).

Fig 2 Dr Andrew Gold's 1920 Conjoint Certificate

He planned to go into General Practice but decided first to travel, and he became a Ship's Surgeon on the SS *City of Manchester* from Glasgow to Calcutta. The appalling conditions that he saw, of so many people living on the streets in India, apparently had a real effect on him.

On his return, and after further experience of working at Glasgow Royal Infirmary, he went into General Practice in Alloa. One day he was called out to an accident at the local slaughter house. After attending to the patient, he was shown around the buildings and witnessed the inhumane and barbaric way the animals were treated. From then on, he decided to become a vegetarian. He also felt that protein obtained from eating meat was "second-hand".

He was exceptionally caring for those he treated and after 5 years in General Practice he realised that his patients' problems needed a different approach. He had seen at first hand the damage that smoking and alcohol and a poor diet could do. He wanted to show people that if they lived a healthier lifestyle, they would feel fitter and the chances of getting diseases would be much reduced. He wanted to focus on preventative medicine; weight reduction, a good quality diet, reducing animal fats and sugar and encouraging fresh air and exercise.

He felt the way he could best influence people was if they were to be under his day-to-day control. So, in 1928, he bought Inveresk House near Musselburgh.

This large 16th century house, set in 8 acres, had originally been the private residence of the Rev Adam Colt and has a fascinating history. King James VI came to stay from time to time and Oliver Cromwell made it his headquarters while his troops were encamped at Musselburgh.

Dr Gold turned it into a healing centre, (Figs 3 and 4) based on natural methods using both his medical experience and also homeopathic medicines. Maybe the motto above the doorway of Inveresk House attracted him. The translation from Latin, "*In hoc domo nemo nisi veritatis et pacis studiosus intrabit*", is "No one shall enter unless devoted to peace and truth".

Fig 3 The Nature Cure Home, Inveresk, Midlothian

Fig 4 The Nature Cure Home, Lawn and Rose Garden, Inveresk, Midlothian

Internal alterations were made to modernise and equip the house for its new purpose, such as putting a wash hand basin in each bedroom and installing coal fired central heating, frowned upon by some! The Home could accommodate up to 12 patients who would stay for usually 3 or 4 weeks. Some arrived in a very poor state of health, for example, overweight and with severe mobility problems. They left having lost weight and with a much-improved walking ability.

Dr Gold's day would usually be divided into three. In the morning he would meet patients individually and decide on their appropriate treatment. A trained, experienced nurse always lived in and would carry out whatever he recommended, for example special baths, massage or heat treatment. If surgery or X rays were needed Dr Gold had a very good relationship with doctors in Edinburgh and appointments were made there when necessary. He also had a practice in Edinburgh, so his afternoons were spent at his Consulting Room at 5 Randolph Crescent.

After their evening meal, patients who were resident at Inveresk would gather in the big upstairs drawing room, relaxing round a log fire to enjoy each other's company. Dr Gold was always present and he would talk about the benefits of healthy lifestyles and share issues brought up by the patients. He felt that this was a very important part of his work and those present found it very therapeutic. Today, group discussions are viewed as an important part of therapy in many clinical situations.

The running of Inveresk House was always a family concern. His wife, who I will tell you about shortly, took full control of all aspects of the management of the buildings, garden and staff as well as organising all the catering and day-to-day needs of the patients. She was always looking for ways to improve and upgrade the premises. They had a thriving organic garden with a good variety of vegetables, herbs, soft fruit bushes and fruit trees for the benefit of the patients, staff and family. Dr Gold was particularly interested in organic composting, this included collecting the grass cuttings from Inveresk Churchyard! He was a member of the newly formed Hope's Compost Club near Gifford. There was a growing feeling that the poor quality of conventionally produced foods, using artificial fertilizers, could be a contributory factor to ill health. Dr Gold was not averse to practical work himself and would sometimes help with building work or sawing logs, as well as working in the garden as a form of relaxation.

The children too helped where they could, such as a trip down to the High Street every morning before breakfast to collect rolls from the baker, shovelling coal in the boiler house or taking food trays or hot water bottles to patients' rooms!

Following the introduction of the Health Service in 1948 and the advent of free prescriptions, he became more and more concerned about the over-prescribing of

drugs with their possible side effects. He fully realised that the biggest problem was when patients went home – would they stick to the regime he had shown them? In the 1930s, his radical approach to patient care was sometimes misunderstood. Some, who didn't know him, regarded him as eccentric, despite the fact that he was a fully qualified and highly experienced physician.

Now I will just tell you a little about Mrs Gold (Fig 5).

Fig 5 Olga Gold

Olga Vick was born in Stralsund, Germany, into a humble family, and her childhood and young adulthood were spent coping with the ravages of the First World War and the hyper-inflation thereafter. She was very unhappy with what was happening there, particularly political intolerance, hatred of the Jews and corruption and she wanted to learn English. She was determined to travel and in 1930 came to work at Inveresk House and learn the language. She and Dr Gold fell in love, were married in 1932 and she became a British Citizen. They had four children.

When World War 2 broke out, they found relatives on each side were forced into combat with each other, a situation which no individual could prevent; all Mrs Gold could think of was that there must be some good in all of us. These thoughts must have tested her strength to the limit when, with no warning, on the afternoon of 10 June 1940, the local Police Superintendent and a Constable arrived at the door with a Notice from Sir John Anderson, the Secretary of State at the Home Office in Whitehall. It read

"Whereas I have reasonable cause to believe Olga Gold (nee Vick) to be a person of hostile origin and associations and that by reason thereof it is necessary to

exercise control over her: I direct that the above-mentioned Olga Gold be detained."

When her husband returned from Edinburgh, he found his wife standing in tears with bag packed and she was then taken away to be interned in Saughton Prison, along with many other foreign nationals, and purely on account of her birthplace. This was just three months before she was due to give birth to her fourth child. I cannot imagine a more stressful situation.

Dr Gold was desperate to get her release, writing numerous letters to the Scottish Office, Home Office and Members of Parliament. He wrote: *"Mrs Gold was not "Hostile to Britain" nor had she ever been a member of or associated with any Nazi organisation in Germany or in this country. Mrs Gold had never had any connection with the Fascist party. It is not to her joy, but to her sorrow, that her brothers may at this moment be in the German Army fighting against us."*

One of Dr Gold's patients, Lord Mather, was so shocked at Mrs Gold being put into Saughton, after doing so much to help the patients at Inveresk, that he used his influence to have her released after six weeks, many months before the other Germans and Italians and well before the baby was born.

However, she was restricted to travelling no further than 5 miles from Inveresk. As Edinburgh was 7 miles away it was very difficult to organise the catering for patients and family, and a request to travel a little further to Heriot for a brief respite holiday was turned down outright. [Incidentally she was in prison with Mrs Luca Scappaticcio – from the Luca's ice cream family in Musselburgh – and a Mrs Findlay. When she was released, Mrs Gold sent them a parcel of flowers and vegetables - only to receive a letter from the Head Warder saying that, while he had given these to the recipients, in future this contact would not be allowed.]

Another incident which brought the Police to investigate was when a blackout blind in one of the top attic rooms was left off by mistake. It was immediately assumed that Mrs Gold was giving a signal to the Nazis. As you can imagine, it was a difficult time for the children growing up with a German mother and Scottish father and with a different lifestyle. They attended Musselburgh Grammar School for some of their primary education and it was not easy to make friends.

Researching The Scotsman archives, I found a "Notice of a meeting of the Psychology Club at 13 Abercromby Place, Sunday 6th February 1944
Dr Andrew Gold – Post-War Psychological Problems All welcome, silver collection."
After the traumatic experiences of his German wife, I feel he would have been well able to talk on this topic.

After the War was over, Mrs Gold would pack up endless food parcels and send them off to European destinations on the firm principle that, while we had little food with our rationing, those in war-torn Europe had even less. Somehow, she managed to get around the regulations and arranged to entertain German prisoners of war from the various camps in Lothian, while at the same time giving hospitality and home to others who had been displaced by the continental turmoil. Olga Gold was very fulfilled by her work alongside her husband until he sadly died in 1962, aged 72. The Chapel at Warriston was filled to capacity for his funeral, with many left to stand outside.

I would like to finish with my thoughts of my father-in-law, who I believe was a quiet, compassionate, intelligent, hardworking doctor and family man, determined to show his patients the very best examples of a healthy lifestyle. He was simply a man of vision, way ahead of his time in the 1930s.

How different it is today. Let me read to you from a recent lead article in The Scotsman "*Prescription medicines can, of course, do wonderful things – like saving your life.* ***But*** *the medical and scientific community has become increasingly convinced that* ***changes to lifestyle and diet can have a dramatic effect on a host of conditions*** *from diabetes to mental health.* ***Exercise*** *has been described a "****wonder drug****" by leading experts, a phrase designed to make this pill-obsessed population* ***sit up and take notice****."*

THE TWO HUNDRED AND THIRTEENTH ORDINARY MEETING

The Two Hundred and Thirteenth Ordinary Meeting was held at the Lighthouse, Mitchell Lane, Glasgow on Saturday 16 March, 2019. There were four speakers. Firstly, Dr Roy Miller talked on Sir William Macewen and he was followed by Professor Ken Donald on Silicosis in Stonemasons During the Building of Edinburgh's New Town. Next, Elspeth Hayes talked on Draughtsmanship in Norman Dott's Medical Illustrations and lastly, Mr Iain Macintyre took as his title A Family Skeleton? A Tale of Arctic Misadventure.

Professor Donald's paper has been published in the Journal of the Royal College of Physicians of Edinburgh and can be accessed at

https://www.rcpe.ac.uk/college/journal/death-new-town-edinburghs-hidden-story-stonemasons-silicosis

Elspeth Hayes's paper has been published online and can be accessed at

https://academy.eans.org/eans/2019/19th-european-congress-of-neurosurgery/275941/elspeth.hayes.the.draughtsmanship.in.norman.dott.s.%281897-1973%29.medical.html

SIR WILLIAM MACEWEN

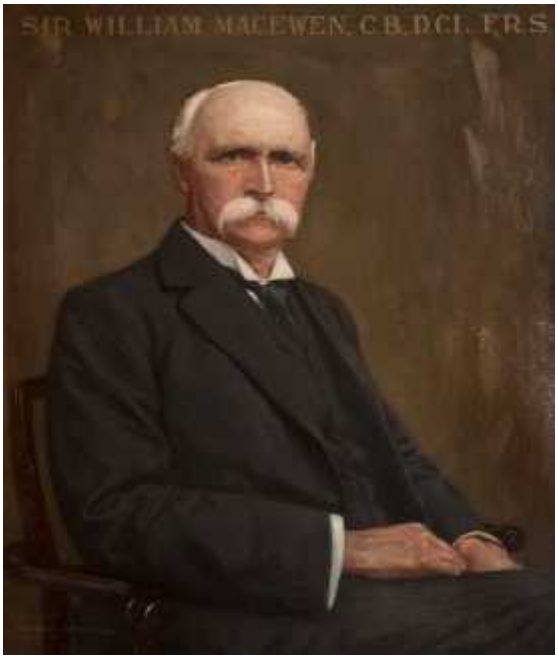

Fig 1

Sir William Macewen (Royal College of Physicians and Surgeons, Glasgow)

Early life and career

William Macewen was born on Bute on 22 June 1848, the youngest of twelve children of a master mariner, John Macewen, who plied the Western Isles, and his wife Janet.

When the family moved to Glasgow in 1860, William attended the short-lived Collegiate School in Garnethill. The school was modelled on the English Public School System, with three masters. It was designed to prepare young gentlemen for Mercantile life, Military or Civil Service, or University.

Aged 15, William was described as a big ingenuous boy, full of animal spirits, bright and intelligent, but indifferent to book learning, more at home in the gymnasium and a master of the single stick, a wooden sword used for training in the art of fighting with broadswords (such as the sabre).

He cast off his boyhood indifference when he entered Glasgow University in 1865 to study medicine, and it is recorded that he spent much of his time examining the specimens in the Hunterian Museum of the Old College.

A fellow student, J.W. Allan, became his close friend, and Macewen eventually married Allan’s sister. It proved to be a happy union. They had three sons and

three daughters. Having a solid home life must have contributed greatly to the confident manner in which he achieved so much.

He graduated in 1869, and entered general practice, was part-time Parochial Medical Officer, Casualty Surgeon to the Central Police Station, and Superintendent of Belvidere Fever Hospital.

He became a Dispensary Surgeon at the Western Infirmary in December 1873, moving across the city to a similar post in the Royal Infirmary in November 1874, a hospital he served until 1892, steadily rising in status, until he became its Professor of Clinical Surgery. Macewen was treated rather badly when he arrived at the Western Infirmary. He did not ask for wards, as was expected, but waited until they were offered. He said he was well enough provided by those at the Royal. Initially he had to operate in a makeshift theatre between his wards. His three assistants were regarded as University, and not Western staff, so he had to do all his own operating.

When the Royal Hospital for Sick Children opened in Garnethill in 1883 he took on the extra appointment of visiting surgeon, along with Hector Clare Cameron. He was the first to operate there.

In 1892 he applied for the post of Regius Professor of Surgery at Glasgow University. His quite brief application is typical of his manner and of his disdain for his local colleagues. It begins simply with, “I am forty-four years of age.” His ‘Curriculum Vitae’ then follows. He includes the fact that, in 1889, he had been invited to a post as Professor of Surgery at Johns Hopkins Hospital, Baltimore “where every facility was provided for scientific research.” He had, of course, refused.

He tendered 16 testimonials. Six were from England, and included Lister and Spencer Wells. The five from Germany included Mikulicz and von Esmarch. Two were from the United States, with one each from France, Scandinavia and Russia. He was appointed.

Macewen and surgical operations

As a student Macewen was a pupil and surgical dresser with Lister, observing his use of a carbolic spray in surgery, but he soon progressed to his own antiseptic, then aseptic technique.

Fig 2 Sir William Macewen operating
Macewen standing on patient's right, Rebecca Strong 2nd from right of image

From this specially posed photograph taken just before he left Glasgow Royal Infirmary one can learn much about his approach to surgery.

Domestic cleanliness was poor and often absent. In planned cases a large area around the operation site was washed, and shaved if necessary, then gently rubbed with a turpentine swab to remove any fatty matter. Free application of methylated gel dispelled all traces of the turpentine before a dressing of lint moistened in a dilution of one in forty carbolic acid was applied. If time permitted, the process might be repeated, and the patient came to theatre with a dressing of one in twenty carbolic acid covering the site.

Macewen washed his hands and arms to the elbow, using soft soap and a nail brush for five minutes by the clock, then immersed his hands in one in twenty carbolic for two minutes. Sterile gowns were donned. Before masks were used silence was enforced as much as possible. Macewen felt the patient could be alarmed to hear any noise during anaesthetic induction, hearing being regarded as the last sense to be lost during the process. Initially rubber gloves were worn only in septic cases.

His anaesthetic was chloroform. He taught his students how to administer it and monitor its effect on the heart, respiration and the eye. He said the anaesthetist was acting as the patient's brain during anaesthesia. When embarking on major

oral surgery he began to insert a tube into the trachea for the anaesthetist. He used a suitable rubber tube such as an unused flatus tube, using an India rubber ring or packing to obtain a seal. Despite American claims to the contrary he was the first, in 1879, to use intubation in anaesthesia.

The photograph also shows the redoubtable matron Rebecca Strong, observing the procedure. Aided and abetted by Macewen she initiated the first ever properly organised nurse training school, which served as a model world-wide. Macewen put a great deal of trust in his nurses, relying on their skills and clinical observations. They, in turn worshipped him. They even bought him his first sterilizer, a domestic fish kettle.

Macewen banished bone and wooden handled instruments so that he could sterilize equipment by boiling for twenty minutes, progressing to steam pressure sterilization when it became available, also using this to sterilize his dressings also.

He designed a bone cutting instrument called an osteotome, with an octagonal shaft to ensure a firm grip. The finely polished cutting surface was of hardened steel to prevent minor scratches harbouring any organic material.

As early as 1875 his experience in treating penetrating wounds of the chest made him consider that lung removal was feasible. In 1895 an opportunity arose when the Professor of Medicine, Sir William Gairdner, presented him with a young man with tuberculosis confined to the left lung. This would certainly have progressed to eventual death. Not only did Macewen remove the affected lung successfully but the patient went on to lead a useful life, arriving in 1940, at the clinic of John Dunbar, surgeon at the Royal Infirmary, with an inguinal hernia. Dunbar repaired it using Macewen's technique[1] and Macewen's hernia needle.

With no guidance from MRI or CT scans, (nor X-rays, which were not discovered until 1895), Macewen's pioneering brain surgery is truly remarkable. He relied solely on acute clinical observation, backed by extensive neurological and anatomical knowledge. By 1888 he had successfully removed seven brain tumours. He had also operated on six spinal cord tumours with full recovery in four of them.

When he produced his "Atlas of Head Sections" in 1893 it contained 53 engravings of cephalic sections cut by himself. He wrote, "The surgeon who is about to perform an operation on the brain has in these Cephalic Sections a means of refreshing his memory regarding the position of the various structures he is about to encounter."

He recorded having dealt with 94 infective intracranial conditions by 1893. He operated on 74, and cured 63. Many of these would have been suppurating mastoiditis of the kind that killed Francois, the first husband of Mary Queen of Scots. A landmark on the postero-superior bony meatus of the ear canal is known as Macewen's triangle and overlies the mastoid antrum.

He also made significant contributions in those suffering from the serious deformities caused by rickets. He had shown by research that growth in long bones was from osteoblasts near their ends and not their periosteal covering. With this knowledge he straightened limbs by osteotomy, taking V-shaped wedges from the convex surface. Post-operatively the bone would be encased in a well-padded half-box splint, or a splint of thick gauze impregnated with paraffin wax, for at least six weeks. Stay in hospital was long. One limb was done at a time. He operated on over 1800 limbs with excellent results.

Later life

As much as possible he sought privacy in his life. He bought as a sanctuary Garrochty Farm near the southern tip of Bute. He had a new farmstead built to his design and under his supervision. He employed a contractor to build a little harbour for his yacht and boat. The man in charge said the chosen site was not feasible. He was discharged. Macewen kept the men and proved it could be done. He enjoyed sailing. He also became recognised as an expert amateur naturalist.

He was still working aged 75 when he visited colleagues and lectured, on a tour of the United States, Australia and New Zealand. He returned in February, a tired man. He developed influenza a month later. This progressed to pneumonia. He died peacefully on 22nd March 1924.

His funeral was private. He was cremated at the Western Necropolis, Glasgow, and his ashes were returned to his native Bute. They are buried in a family enclosure near the ruins of St Blane's Church which are about a mile from Garrochty Farm. From there one has an uninterrupted view to the Clyde Estuary.

Appendix

Macewen's degrees and honours include the following

M.B., C.M., Glasgow, 1869, M.D., Glasgow, 1874

Fellow, Faculty of Physicians and Surgeons of Glasgow, 1874, Honorary Fellow, 1913, Honorary F.R.C.S., England, Honorary F.R.C.S., Ireland
L.L.D., Glasgow. D.C.L., Durham. D.Sc., Dublin. D.Sc., Oxford
Fellow of the Royal Society

He was an Honorary Member of: -
The Imperial Academy of Military Medicine, St Petersburg: The German Surgical Society: The Hungarian Medical Society: The American Medical Society: The Royal Medical Academy of Rome: Corresponding Member of the Surgical Society of Paris.

Knight Bachelor, 1902. Companion of the Bath, 1920. Surgeon to the King in Scotland Surgeon Rear-Admiral, R.N. in W.W.I.

Macewen's appointment as Surgeon Rear-Admiral in the First World War made him the highest-ranking officer in the whole of Scotland. It was recognition of his work in establishing Erskine House as a hospital and rehabilitation centre for limbless soldiers and sailors. He did all the major surgery there, often having to refashion stumps to accept a prosthesis. Thanks to the Marquis of Bute he had also turned Mount Stuart into a military hospital where he operated in a theatre he established there.

More details of these aspects of Macewen's work can be seen in Ken Patterson's paper on Sir William Macewen and the Princess Louise Hospital, Erskine – the Man for the Moment (*Proceedings of the Scottish Society of the History of Medicine* 2014-2016 pp17-20)

https://sshm.ac.uk/wp-content/uploads/2018/12/SSHM-Proceedings-2014-2016.pdf

The Glasgow College possesses Macewen's personal journals, which a former Honorary Librarian saved from destruction by his family. For an example see https://heritage.rcpsg.ac.uk/items/show/1493

Images

Fig 1 Sir William Macewen

Fig 2 Sir William Macewen in the operating theatre

We are grateful to the Royal College of Physicians and Surgeons of Glasgow for permission to use these images

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A FAMILY SKELETON?

A family tree and skeletal remains

This all began with a family tree. After creating it, I shared it online with other researchers on the Ancestry website. This resulted in meeting some previously unknown relatives and discovering hitherto undiscovered ancestors.

The contact which resulted in the present story came from a Michael Tracy in the United States. He has devoted himself to tracing his Scottish ancestors in Fife and Angus and has published a series of monographs about them. He indicated that a research team in England were looking for direct female descendants of a Christian Goodsir (1717-1760), that my wife was one such, and he helpfully provided the relevant part of the family tree. The research team, led by Simon Mays of English Heritage, were investigating some historic skeletal remains and they were looking to compare mitochondrial DNA (MtDNA) from female relatives. This requires direct mother to daughter to granddaughter in an unbroken female line. While that did not apply in my wife's case we were interested to learn about the investigation.

It transpired that Christian Goodsir was the aunt of Dr John Goodsir (1746-1816), a country surgeon in Leven in Fife. His son, also John Goodsir (1782-1848), was a surgeon in Anstruther in Fife. Two of his sons became doctors and the skeletal remains being investigated by Simon Mays's team might be those of <u>his</u> son Harry Goodsir (b. 1819).

At that time, I knew little about Harry Goodsir but was aware of his famous elder brother John Goodsir (1814-1867), a pioneer of cell theory, curator of Surgeons Hall Museum and professor of anatomy at the University of Edinburgh. The skeleton being investigated might be that of Harry Goodsir.

John and Harry grew up in Anstruther and briefly practised medicine together in the Hermitage, a large house in Anstruther. On the wall outside is a small plaque which modestly states that John Goodsir who lived there "*lectured on cell life at Surgeons' Hall, Edinburgh*."

It is indeed a modest claim when you consider that the great German pathologist, Rudolf Virchow, paid John Goodsir a generous tribute when he dedicated the English edition of his textbook *Cellular Pathology* to him "*out of respect and admiration*" and Virchow went on to describe Goodsir as "*one of the earliest and most acute observers of cell-life both physiological and pathological*." Stephen Jacyna, a contemporary medical historian reassessing Goodsir's contribution, concluded that Goodsir had indeed pre-empted Virchow in setting out the

foundations of the cellular theory of life. So he was an influential figure in the development of cellular theory.

Harry Goodsir

John Goodsir's younger brother Harry Goodsir grew up in Anstruther. From an early age he collected and listed marine specimens from the shores and rock pools of the Firth of Forth and later from the waters of the Forth. While still in his teens, he catalogued these in one of a series of papers that would eventually mark him out as one of the country's leading naturalists. He learned scientific discipline early. While still at school in St Andrews, he joined the Literary and Philosophical Society of St. Andrews.

The "Lit and Phil" was a formidably impressive group of academic scientists. This society was centred around Sir David Brewster, principal of St Andrews University, an eminent physicist and, amongst many other achievements, the inventor of the kaleidoscope. The Society's members included John Adamson, a local doctor who learned the calotype process from its inventor Fox Talbot, and, after painstakingly developing the process over a year, took the first calotype photograph in Scotland. He then taught the technique to his younger brother, Robert who, with David Octavius Hill, became internationally known as a photographer. Other members of the Society included John Goodsir and Edward Forbes, of whom more shortly. Charles Darwin had joined and remained a corresponding member, as did Charles Babbage, the mathematician and inventor of the analytical engine.

As a result of their pioneering efforts St Andrews became the first town in the world to have its streets and monuments recorded in photographs.

Harry Goodsir became a medical student in Edinburgh, not at the University medical school, but at the extra-mural school. He shared a flat at 21 Lothian Street with his brother John and Edward Forbes. They were at the heart of the Universal Brotherhood of Friends of Truth, a convivial and intellectual group of scientists, poets and literati.

Like Forbes, Harry joined another scientific society, the Wernerian Natural History Society, which was to further influence his future career. Members of this group included some famous names. Among the physicians and surgeons were Robert Knox, the anatomist, who had a huge influence on the Goodsir brothers, despite his role in the Burke and Hare scandal. There were physicists and engineers but crucially also naturalists and explorers.

Harry's interest in natural history and in Arctic exploration was undoubtedly stimulated by association with men like these. During his medical studies he

further developed his interest in natural history, making particular use of microscopy.

Much of the work on which many of his future publications were based was carried out during his student days. He qualified as a Licentiate of the Royal College of Surgeons of Edinburgh (LRCSEd) in 1840 and went into practice with his brother John in their father's practice in Anstruther. Here he devoted himself increasingly to natural history, giving oral presentations and publishing more academic papers on the subject. However, although they had inherited their father's practice in Anstruther both had ambitions beyond that of a country doctor.

To further his career as an anatomist, John moved back to Edinburgh to become Conservator of Surgeons' Hall Museum. When John decided to move to the University, he recommended Harry as his successor. Harry's ambitions lay in natural history rather than medicine and he was duly appointed Museum conservator in 1843. Surgeons' Hall by then housed a major international anatomical and pathological collection, with the museum extending across the entire upper floor of the College.

The Franklin Expedition

Driven by his passion for natural history and exploration, Harry applied in 1845 to be Assistant Surgeon on the Franklin Expedition to find the North West passage. The Royal Navy at that time did not appoint naturalists on such voyages, but in letters to his family Harry made no secret of the fact that he intended to act as the expedition's naturalist.

This appointment was arranged with the help of his former Edinburgh flatmate Edward Forbes, by now Professor of Botany at Kings College, London. He wrote to Harry "*I have had Sir John Franklin spoken to. I am advised to be easy...*" Franklin was one of the most senior figures in the Navy, and a national hero, while Forbes, a very junior professor, was noted for his outspoken manner. Before setting sail, Harry spent time in London with Forbes, who introduced him to some of the leading naturalists and biologists in the country. Harry was described as "*a young naturalist of the greatest promise*."

Before the expedition vessels HMS *Erebus* and HMS *Terror* set sail, Daguerreotypes were taken of the officers of the *Erebus* and these were to prove valuable in the later identification of Franklin crew members. Just before sailing Harry was delighted to have the post of naturalist added to his commission.

During the voyage he busied himself with scientific observations and trawling for marine sealife to study.

Sir John Franklin recorded that '*Goodsir has collected very assiduously on the waters and from depths and he has procured many things which are rare and some of them unknown*.' He went on '*… at a table in my cabin he draws and describes his animals as soon as they are taken. Every one, officer and man, is happy to collect for him; in fact, he is a very general favourite on the ship*.'

James Fitzjames, Captain of HMS *Erebus*, also attested to Goodsir's diligence and his popularity, writing:

'*He is long and straight…is perfectly good humoured, very well informed on general points, in natural history learned, was Curator of the Edinburgh Museum, …laughs delightfully,…is enthusiastic about all 'ologies, draws the insides of microscopic animals, catches phenomena in a bucket, looks at the thermometer and every other meter, is a pleasant companion, and an acquisition to the mess.*'

The expedition crossed the Atlantic and then berthed at Disco Bay on the west coast of Greenland to pick up supplies and post letters. It was from here that Harry posted what was to be his last paper for publication, which was published posthumously. From Disco Bay the expedition sailed west to the entry to the North-West Passage, where they were observed by whalers on 26th July, the last time the Franklin expedition was seen by Europeans.

The disappearance of the Franklin expedition provoked a national crisis – if the ships and crews were lost this would be one of the greatest losses of life suffered by the Royal Navy in peacetime and would be a blow to national prestige. The British Government offered a £20,000 reward for finding the expedition or £10,000 for any credible information about its fate.

Prominent among the searchers was Sir John Richardson, an Edinburgh medical graduate who had worked at Leith before joining Franklin on earlier expeditions. Richardson, aged sixty by this stage, felt that he had to choose a younger physician with experience of the Arctic to join him and he chose John Rae.

Rae was an Orcadian, who qualified LRCSEd and then, as surgeon with the Hudson's Bay company, gained an intimate knowledge of the Canadian Arctic and learned Arctic survival skills from the Inuit. On a later expedition (1851 -54) he found, with Inuit help, important artefacts of the Franklin expedition. He brought these to London, unaware of the reward on offer, and was awarded the £10,000. Rae quoted the Inuit suggestion that some Franklin survivors, in a desperate bid to survive, had resorted to cannibalism, an idea which sent shock waves through Victorian society and blackened Rae's character, with Charles Dickens his most vociferous and influential critic.

Rae's reputation was finally restored in the 21st century when in 2014 a plaque to his memory was unveiled in Westminster Abbey. Recent studies have confirmed the Inuit suggestion that the Franklin survivors had indeed resorted to cannibalism. Rae deserved recognition, for he was the first to map the North West passage. When Amundsen first sailed the passage 50 years later, he acknowledged Rae's contribution.

In 1859, when all hope of finding Franklin survivors alive had been lost, a note from survivors was found on King William Island in the Canadian Arctic. Written in 1848, it gave the tragic news that by then Franklin and 23 of his crew were dead, that the ships were icebound and the survivors were heading south on foot for the Canadian mainland.

One of the most gruesome discoveries was the finding on Beechy Island of three bodies of Franklin sailors so well preserved in the permafrost as to be readily recognisable. In the 1980s, post mortems were performed on these bodies on site and the finding relevant to our story was that one, John Hartnell, had previously had an autopsy, almost certainly performed by Harry Goodsir.

Charles Hall, an American explorer, made the finding most relevant to the present narrative. He was taken by Inuit in 1869 to a grave on the south end of King William Island, just north of the Canadian mainland. We now know that having abandoned their icebound ships off the north coast of the island, some of the survivors travelled south down the west of the island, heading for the mainland. Inuit testimony and relics found along the route suggest that some survivors made it to the south coast of the island and it was here that the grave was found. This grave contained a virtually complete skeleton missing only a scapula. some ribs and foot bones, possibly the result of animal predation. Hall handed over the skeleton to the Royal Navy, who returned it to Greenwich.

The skeleton from the Arctic

There it was examined by Thomas Henry Huxley, the leading biologist of the day, President of the Royal Society and a Privy Councilor. As a young naturalist Huxley had been mentored and promoted by Edward Forbes. There were relatively few techniques available for skeletal identification at that time and Huxley was very conservative in his conclusions. He pronounced that the skeleton was that of a male, 5ft 10in in height, at least 30 years old and with a prominent nose and chin and square set jaw.

On the basis of this information the Admiralty pronounced the remains to be those of Lt Henry Le Vesconte. The skeletal remains were buried under the Franklin Memorial, at the Old Royal Naval College, Greenwich, initially in the

magnificent Painted Hall, before being moved in 1938 to the Chapel. In 2009, it was again moved, to the Chapel Vestibule.

Before reinterment some samples were taken from the skeleton to allow a scientific analysis by a team led by Simon Mays of English Heritage. The Mays team found some items with the skeleton which confirmed its provenance, that it was indeed the skeleton recovered from the Arctic. They published their results in 2011. The skeleton was of a Caucasian male aged 30-40 years. Analysis of the ratios of oxygen and strontium isotopes was performed on tooth enamel. These isotopes are laid down in childhood and stay there permanently. Oxygen isotope ratio gives a geographical 'signature' of water drunk in childhood, while the Strontium isotope ratio gives a signature of food consumed in childhood. These are thought to be accurate for the early 19th century when the diet consisted virtually exclusively of locally grown produce, but are no longer applicable today when individuals in developed countries eat food from all over the world.

From the analysis of oxygen and strontium isotope ratios in the tooth enamel Mays et al considered that it was "…*highly unlikely that the oxygen isotope ratio of the Franklin sailor could have been obtained in western Britain*", that the "…*sailor spent his early childhood in central or eastern Scotland or England*…", and that taken together "…*results preclude the western seaboard, most of southwest England*…" as the location where the sailor grew up.

They concluded that "*Given that Le Vesconte spent his childhood in Devon, the results indicate that the current remains are unlikely to be his.*"

So whose were they? There were further clues.

There was a precisely placed gold filling in a maxillary premolar tooth. This was in the days before even the clockwork drill had been devised. Such fillings were rare in 19th century skeletons, as there were relatively few dentists who practised this technique in the 1830s. One who did however was the Edinburgh dentist Robert Nasmyth. He was surgeon-dentist in Scotland to Queen Victoria and was a close friend of Harry Goodsir's father. Moreover John Goodsir, Harry's brother, had been his dental apprentice for 2 years, after which they corresponded for many years. Nasmyth's reputation for the technique of gold filling was an international one. In 1838 he published an article describing his technique in detail for the Boston Medical and Surgical Journal. This added to the evidence that the skeleton might be that of Harry Goodsir.

A further clue was the presence of a dental malocclusion (Angle class II, division 2). This was a rare malformation, estimated to occur in only 4% of the population. The clinical features of this include a bulky lower lip and a deep sublabial groove.

Mays and colleagues concluded that "…*Goodsir is the most likely [candidate] as his lower lip appeared the most bulky and prominent of the photographed officers with a deep sublabial groove*."

Finally, they performed a facial reconstruction from the skeletal skull. The protocol requires that those doing the reconstruction must not see any images of possible candidates. There was a remarkably close fit with Goodsir's face.

Conclusion

Although not conclusive, these results were very suggestive that the skeleton was that of Harry Goodsir. Hence the search for DNA from a descendant. Harry Goodsir had no descendants and nor did any of his siblings, so the search expanded to descendants of his aunts and uncles. As yet no relative fulfilling the criteria for DNA analysis has been found.

A definitive identification would require DNA from his brothers John and Robert, both of whom are buried in Dean cemetery in Edinburgh. Given the considerable legal, ethical and financial implications it seems unlikely that exhumation for this purpose will go ahead and the identity of the skeleton may never be proven beyond doubt.

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An extended version of this paper has been published in Topics in the History of Medicine, the online journal of the British Society for the History of Medicine

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THE TWENTY SEVENTH HALDANE TAIT LECTURE

A J CRONIN AND "THE CITADEL"

69 members and guests attended the Twenty Seventh Haldane Tait Lecture, held in the Great Hall of the Royal College of Physicians in Queen Street Edinburgh, on 22 May 2019**.** Dr Ruth Richardson gave a most entertaining and thoughtful talk on AJ Cronin.

Dr Richardson prefaced her talk with a generous tribute to Haldane Tait, who like the subject of her lecture, AJ Cronin, had obtained the Diploma in Public Health.

She described *The Citadel*, Cronin's best-known novel, as the literary sensation of 1937, disguising within its fabric the drama of real persons and real events. The book's remarkable sales and impact were the result of its powerfully romantic story and its medico-politics: especially its forthright attack on medical greed and medical charlatanism portrayed at work in private doctoring at the Harley Street level of the profession. The appeal of all these elements was combined with an extraordinary publicity campaign by Cronin's publisher, Gollancz, thus generating even more interest in the book.

Her lecture traced Cronin's life from his modest Scottish upbringing and medical education, to his work as a general practitioner in Wales and London, and then his path away from medicine and towards Hollywood and his international life thereafter. She discussed his medical literary works, most especially *The Citadel*, which has been credited with helping create the climate of opinion behind the establishment of the National Health Service and *Shannon's Way* (1948), describing work carried out by its subject on Brucellosis.

She suggested that much of Cronin's appeal came from his skill in describing personal experiences of the challenges in medicine and that he had been less successful as an author when writing outside this field.

A number of questions from the audience followed and it was clear that many of those listening had been influenced by their exposure to Cronin's work, some attributing their decision to study medicine directly to reading *The Citadel*.

Much of the material in this excellent talk is covered in a paper by Dr Richardson in 2016 in the Lancet, which can be accessed at

https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)30696-1/fulltext

THE TWO HUNDRED AND FOURTEENTH ORDINARY MEETING

The Two Hundred and Fourteenth Ordinary meeting of the SSHM, the Summer meeting, was held in the Dalhousie Building at the University of Stirling on Saturday 15 June 2019. There were three papers, David Hamilton talked on Hitler's Coming: Our Gas Masks in Rothesay, Bute in 1939, Rosa Macmillan, a 4th year medical student at Glasgow University, took as her title The GRI had Vision, Without Which the People Perish: Women in Pathology at the Glasgow Royal Infirmary and Caroline Brown talked on Learning from the Past: How Asylum Archives can Influence Approaches to Care Today.

Rosa McMillan's paper gave was based on a dissertation which had won the Glasgow Royal Infirmary (GRI) St Mungo research prize for 2020. It described the difficulties experienced by women wanting to enter the male-dominated world of pathology.

The first hospital to make a female appointment was GRI in 1899. The head of the Pathology Department, Professor John Hammond Teacher, held the view that the employment of women "did not detract from the department". He was the force behind employing greater numbers of women doctors and the proof that GRI was ahead of its time in allowing the progress of women in pathology and most other specialties.

By comparison, Glasgow's Western Infirmary appointed its first female resident in 1946 – a full 50 years after the first female resident at GRI.

HITLER'S COMING

OUR GAS MASKS IN ROTHESAY, BUTE IN 1939

Born in 1939, one memory of my wartime days in the manse in Rothesay on the Isle of Bute was that there was a heavy, clumsy mask made of thick rubber which held a bulbous metal cannister and filter. We were told that it was to protect us if Hitler decided on a poison gas attack on the island. It seemed a bit dramatic then, and rather improbable now.

By the mid-1930s came the realisation that future wars would be fought in the air, and not from the trenches. Although the WW1 poison gases were tricky to use, even at close quarters, an alarmist speech in the House of Lords in 1933 suggested that the entire country was vulnerable to aerial gas attacks. The military strategists added that a gas attack could be used as a prelude to invasion.

Accordingly, the UK government in 1936 decided to provide a gas mask for all United Kingdom citizens. After the end of WW1, masks had continued to be made and were provided for the military but Britain was the only nation to extend cover to the civilians, and the huge production and distribution task started.

The government files show there were many administrative challenges, notably in dealing with special cases such as protecting children, the disabled, and those with asthma. Even wearing spectacles caused difficulties when using a mask. The civil servants patiently dealt with these awkward matters and many grumblers, and produced niche advice for special occupations, notably telephonists and surgeons. Added to the protection of the citizens was concern for the safety of some animals, notably the many dogs used by the military and civilian police. The civil servants were unfazed when they found that more than one breed was involved, and a range of suitable bespoke canine masks were produced. Even the camels used by the Army in the Middle East had their own bulbous design.

Initially, the masks were held in storage, but after the Munich crisis in September 1938, they were distributed to the citizens and from the Phoney War onwards, the citizens were urged to carry the mask at all times, an exhortation widely ignored. Penalties were suggested and prominent citizens who were non-wearers were outed in the press. Rehearsals for responding to a gas attack were organised, even using tear gas to give verisimilitude and the correct atmosphere. The charcoal filter had to be checked and refreshed regularly at local depots.

After the Battle of Britain, Hitler's ambitions instead turned eastward and with the fear of air raids diminishing, air raid vigilance and gas mask discipline slipped. The masks were never returned to store and they, and the sturdy storage box, became this odd feature of post-war home life.

Fig 1 The Civilian Respirator

Fig 2 The Civilian Respirator -How to Adjust it

Illustrations
Both are courtesy of Wellcome images
Figure 1 (The Civilian Respirator)
This is No 27 in a series of 50 Cigarette Cards issued by WD and HO Wills (cigarette manufacturers) in 1938, showing how to protect life and property from air raids. In this case it shows a gas mask which was to be issued "free to the public"
https://dlcs.o/thumbs/wellcome/5/b16647580_EPH_2_53_0001.jp2/full/!200,200/0/default.jpg

Figure 2 The Civilian Respirator- How to Adjust it
This is No 28 in a series of 50 Cigarette Cards issued by WD and HO Wills in 1938.
https://dlcs.io/iiif-img/wellcome/5/b16647592_EPH_2_54_0001.jp2/full/400%2C/0/default.jpg

LEARNING FROM THE PAST: HOW ASYLUM ARCHIVES CAN INFLUENCE APPROACHES TO CARE TODAY

University of Dundee Archive Services is a place of deposit for the archives of NHS Tayside. This means we hold records relating to the management of healthcare, to hospitals and to what were originally called asylums. These archives are amongst the most heavily used of the University collections, attracting interest from family and local historians, researchers into the history of medicine and those looking at broader social and economic issues. Staff at the Archive have recently been involved in a number of projects working with the NHS and with the University's School of Health Sciences to use the collections to inform approaches to learning disabilities and mental health issues. This paper gives an overview of the asylum records held by the Archive and how they are being used to make an impact on care today.

By the end of the middle ages a few institutions existed to provide care for those who were known as 'lunatics', usually funded by religious organisations, with St Mary of Bethlehem (Bedlam) being a well-known example. Until the second half of the 19th century, provision of care remained dependent on Christian or other private and charitable funding and this was often delivered in an infirmary or workhouse setting. In 1781, however, the first dedicated asylum in Scotland was opened in Montrose (Fig 1), funded by subscription and donations although some pauper patients were supported by the Kirk Session and some by the direct support of the patient or their family. Gradually specialised care grew out of generalised care, for example Dundee Lunatic Asylum grew out of the infirmary and opened with public subscription in 1820, by which time there were also public asylums in Aberdeen, Edinburgh and Glasgow.

Fig 1 Montrose Royal Asylum, opened 1782

While care remained largely in private hands, the 19th century saw the start of greater state regulation in Scotland. The 1815 Act to Regulate Madhouses required the licensing of private asylums, inspections by medical practitioners and the keeping of registers. With this increased regulation came better recordkeeping, which forms the basis of the archives we hold today. By the middle of the 19th century overcrowding and poor conditions led to the establishment of a Royal Commission and the 1857 Lunacy (Scotland) Act which allowed the creations of district boards to establish district asylums, fifteen of which were built between 1857 and 1877. The Act also led to the creation of a Board of Lunacy and Commissioners in Lunacy and required centralised reporting by asylums, again increasing the volume of records created and kept (Fig 2).

Table XVII.—Showing the Probable Causes of Insanity in the Patients admitted during the Year ending 14th May, 1900.

ADMISSIONS—MALES 75. FEMALES 89. TOTAL 164.

CAUSES OF INSANITY.	M.	F.	T.
MORAL :			
Domestic Trouble, ...	2	4	6
Business Worry	3	0	3
Overwork, ...	1	1	2
Overstudy, ...	0	2	2
Love Affairs, ...	0	4	4
PHYSICAL :			
Intemperance in Drink,...	13	9	22
Syphilis, ...	1	0	1
Pregnancy, ...	0	1	1
Climacteric Period, ...	0	6	6
Lactation,...	0	2	2
Uterine and Ovarian Disorders, ...	0	2	2
Adolescence, ...	6	3	9
Old Age, ...	7	10	17
Heredity, ...	5	13	18
Influenza, ...	1	8	9
Congenital, ...	2	1	3
Epilepsy, ...	4	0	4
Gross Cerebral Disease,...	4	3	7
Bodily Disease, ...	2	3	5
Unknown, ...	24	17	41

Fig 2 “Probable causes of insanity”, Montrose Royal Asylum 1899-1900

The 20th century French philosopher Michel Foucault argued that the shutting away of undesirable elements of society was a form of state control and led to a dehumanisation of those who were institutionalised. However, for many of the private individuals who funded the early asylums their aim was to separate patients from the potential causes of their illness with the hope that reason would be restored or at least to alleviate their suffering. This was why many asylums were situated outside towns, often in grand buildings surrounded by parkland, (Fig 3). Fresh air, routine and order, and occupation were seen as essential to recovery.

Fig 3 Murray Royal Asylum, Perth, opened 1828

The archives held by the University describe, to some extent, the patients who were admitted to asylums and their treatment and care, (Fig 4).

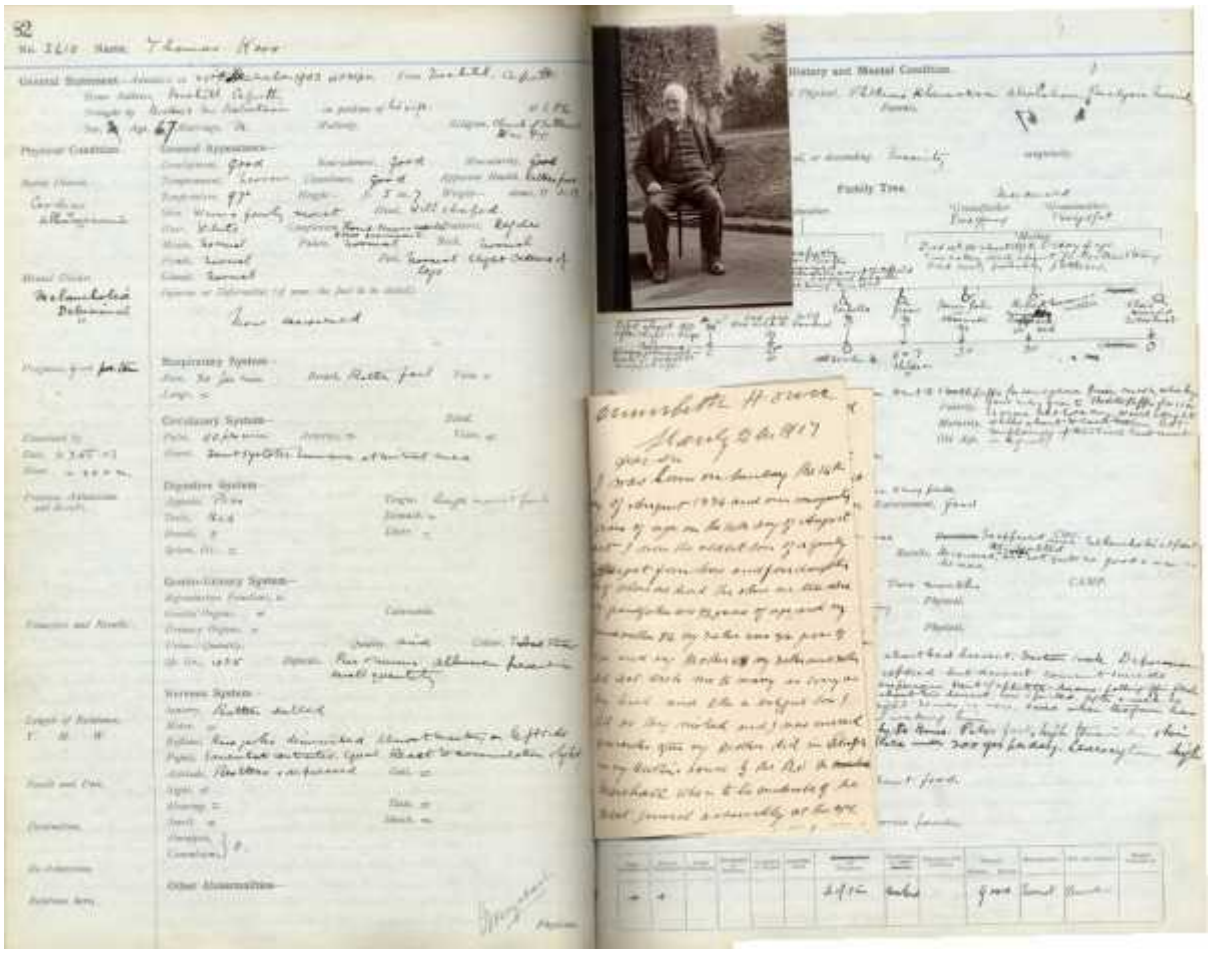


Fig 4 Case Note of Thomas Kerr, admitted to Murray Royal Asylum, 1903

This history covering the early days of the asylums, the subsequent development of treatment with drugs, overcrowding, buildings becoming not fit for purpose and the de-institutionalisation of the latter part of the 20th century, can provide important context to today's medical practitioners. The second part of this paper will describe some of the ways the Archive has contributed to this.

The University's School of Health Sciences is strong in the area of mental health nursing and Archive staff have been involved in teaching in this subject. By looking at the past, students can understand how current practices have developed; the historical context helps not just to understand the present but also to approach the future in an informed way. We have found that discussing issues in the past such as restraint and seclusion provides a safe place in which to consider topics which might be difficult when viewed solely through the lens of the present. Students can see how policy is implemented at a local level and how that impacts directly on patients and those receiving care and they have found this very stimulating.

A major project which we were involved in was Strathmartine Hospital Histories, http://www.strathmartinestories.co.uk/ funded by what was then the Heritage Lottery Fund, in partnership with the Thera Trust, a charity for people with learning difficulties, and local organisations. The aim was to give a voice to people who had been resident in Strathmartine Hospital (Fig 5), (which began life as an asylum) or who worked there or lived in the local community. These people are often not represented in official records and we wanted to record their memories of the hospital and its subsequent closure in 2003. The intention was partly to include these in the historic archive but also to create a body of evidence which would highlight the inadequacies of institutional care and inform policy makers of the future.

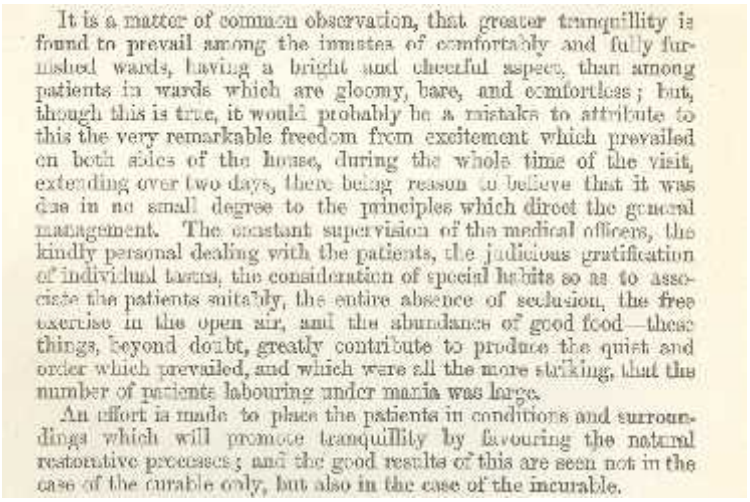
Fig 5 Cover of Strathmartine Hospital promotional booklet, c1971

Archives are often used to hold organisations to account or to support social justice and archivists are increasingly involved in assisting in capturing or even creating evidence to ensure that all of society are represented in the archive. However, it could be argued that it is problematic for archivists to create records, particularly in order to prove a particular point. Archives have a habit of exposing the unexpected. Certainly, we found that in addition to revealing often serious deficiencies in the care provided by the hospital, the project had a number of other outcomes.

Participants were invited to the archive (Fig 6) or were able to see archive material published in the project newsletter or through the travelling exhibition. Many of those we spoke to, especially residents, had few physical reminders of their time in the hospital and a number welcomed the opportunity to reconnect with a part of their past through the archives, however difficult it had been. In addition, the project was an opportunity to connect with others for the first time since the hospital had closed. We were vividly reminded of the role of archives in forming and supporting individual and community memories and identities.

Fig 6 A Former Stathmartine resident visiting Dundee University's Archives

We are currently working with Dundee Healthy Minds Network and University Nursing staff developing pilot projects to connect mental health service users with the archives. Following the stories of some early asylum patients and researching the care that they received has given us the opportunity to reflect on 21st century approaches to mental health issues and we hope to link with other institutions across Scotland to expand the project. One participant commented 'I can honestly say that being a mental health patient for over 30 years this experience has got me buzzing. I'm feeling better and more positive than I have in a very long time. I actually felt like I knew some of the people we researched. They came alive, I could imagine how they were living and feeling. I was going back in time.' Of particular interest was 19th century approaches to patient care, in particular the emphasis on individualised treatment (Fig 7).



It is a matter of common observation, that greater tranquillity is found to prevail among the inmates of comfortably and fully furnished wards, having a bright and cheerful aspect, than among patients in wards which are gloomy, bare, and comfortless; but, though this is true, it would probably be a mistake to attribute to this the very remarkable freedom from excitement which prevailed on both sides of the house, during the whole time of the visit, extending over two days, there being reason to believe that it was due in no small degree to the principles which direct the general management. The constant supervision of the medical officers, the kindly personal dealing with the patients, the judicious gratification of individual tastes, the consideration of special habits so as to associate the patients suitably, the entire absence of seclusion, the free exercise in the open air, and the abundance of good food—these things, beyond doubt, greatly contribute to produce the quiet and order which prevailed, and which were all the more striking, that the number of patients labouring under mania was large.

An effort is made to place the patients in conditions and surroundings which will promote tranquillity by favouring the natural restorative processes; and the good results of this are seen not in the case of the curable only, but also in the case of the incurable.

Fig 7 Extract from the Montrose Asylum Directors' Report for 1878

We are also encouraging participants to record their own thoughts and experiences to add to the archive. Our asylum records show how understanding the past through consulting archives can impact directly on individuals and society in the present. We have also come to realise how essential it is for us to ensure that the present is properly recorded. As one mental health user commented when asked for their opinion of the link between archives and current mental health care provision 'It is important that we carry on the excellent work of our predecessors and carryon keeping records for future generations. Who knows one day we might just get it right?'

All images are by courtesy of Dundee University Archives.

With this meeting in Stirling the 2018-2019 session of the Society came to a close.

The Scottish Society of the History of Medicine

REPORT OF PROCEEDINGS

SESSION 2019-2020

THE SEVENTY-FIRST ANNUAL GENERAL MEETING

The Seventy-first Annual General Meeting was held in the Royal College of Physicians of Edinburgh, on Saturday 22 October 2019. 38 members or guests were present. After the President, Dr Niall Finlayson, welcomed members, the minutes of the Seventieth AGM (2018) were approved and the President then gave his report. The Treasurer, Dr Malcolm Kinnear, gave an informal report in which he assured members that the finances were sound and a report had been submitted to OSCR. Mr Andreas Demetriades, the Secretary, then gave his report and this was followed by the report of the Guthrie Trust. The election of Office Bearers then took place, with the Vice President, Dr Neil MacGillivray being elected President and Mr Demetriades and Dr Kinnear continuing in the roles as Secretary and Treasurer respectively. Dr James Friend and Dr Essie Tough were elected as new Council members. Retiring Council members, Professor Tony Butler and Jan Shepherd were thanked for their efforts. Dr Finlayson then handed over to the new President, Dr MacGillivray, who thanked Dr Finlayson for his hard work and careful stewardship of the Society over the last three years.

THE TWO HUNDRED AND FIFTEENTH ORDINARY MEETING

This meeting followed the Seventy-first AGM at the Royal College of Physicians of Edinburgh on Saturday 22 October 2019. There were four speakers. The first was Dr Hilary Morris, Senior Lecturer in the History of Medicine at the University of Brighton, who talked on Protecting the Health of Soldiers and Sailors during the 18th and 19th Centuries: a Reassessment of the role played by Scottish Medicine. She was followed by Dr John Clark, Forensic Pathologist from Glasgow, who took as his title From Longwood to Hillhead, Napoleon, Egypt and Scotland. Professor Tony Wildsmith then talked on Aylett, Alsop, their Casualty Management and what did kill most Americans at Pearl Harbour? The final

speaker was Dr Maria Długołecka-Graham who talked on the Polish School of Medicine at Edinburgh during WW2, the Doors that Wouldn't Close.

Dr Hilary Morris's paper drew on work which is covered in detail in her PhD thesis, Military and naval campaigning on behalf of the health of society, with reference to eighteenth and early nineteenth century Britain, which is available at https://researchportal.port.ac.uk/portal/files/11009512/ThesisPDF.pdf

Much of Professor Wildsmith's material is covered in in a paper given to the History of Anaesthesia Society on Aylett's Anaesthetists, which is available at http://www.histansoc.org.uk/uploads/9/5/5/2/9552670/volume_52.pdf

FROM LONGWOOD TO HILLHEAD - NAPOLEON, EGYPT AND SCOTLAND

British Association in Forensic Medicine

The British Association in Forensic Medicine, (BAFM), the professional association for forensic pathologists in the UK, was founded in 1950 and its first two presidents were Professors of Forensic Medicine in Scotland. The BAFM's first president was Sir Sydney Smith (1883-1969), Professor of Forensic Medicine at Edinburgh University from 1928 to 1953 and he was followed as president by Dr John Glaister, (1892-1971), who was Professor of Forensic Medicine at Glasgow between 1932 and 1962. Both Smith and Glaister had worked in Egypt before taking up their chairs in Scotland. Smith had been appointed as the Chief Government Pathologist in Egypt in 1917 and when he went to Edinburgh in 1928, he was succeeded in this role by Glaister, who remained there until his appointment in Glasgow in 1932.

Forensic Pathology in Egypt

In 1798, when Napoleon invaded Egypt, he brought not only soldiers but also scholars and this stimulated a new Islamic Enlightenment. An Institute of Egypt was founded, with interests as diverse as mathematics, physics, political economy and the arts. There was a new legal system, the Code Napoléon. Hospitals were built, a public health structure was inaugurated and a medical school was set up in Cairo in 1820.

In 1882 Egypt became a British protectorate, to secure British financial and strategic interest in the Suez Canal. The officials and personnel who arrived inherited many of the structures and institutions first established earlier in the century by Napoleon. In 1917 Sydney Smith was appointed as senior lecturer in forensic medicine at the School of Medicine in Cairo. There were two other

members of staff, both Egyptian. There was a large workload, with about 1000 homicides per year. Laboratories and x-ray facilities were established and Smith was able to write "*Within a few years we had probably the finest medico-legal installation in the world – and certainly the busiest*". After Glaister took over from Smith in 1928, he expressed similar sentiments "*The Egyptian government provided ample resources for forensic medicine in the University and it became something of an international showpiece*" Pathologists in those years had an opportunity to develop a great expertise in a number of fields including post-mortems, skeletal remains and drug analysis. In addition, Smith took a particular interest in gunshot wounds and Glaister explored hair analysis in detail.

The confidence of the pathologist

Smith and Glaister in Egypt in the 1920s worked under very different conditions from those in which a forensic pathologist works nowadays. In the 21st century access is available to specialists in forensic archaeology and anthropology and use might also be made of forensic entomology and forensic imaging.

On the other hand, in Egypt, Smith did have some advantages, as he recorded in his autobiography *Mainly Murder*, (1959)[1] "*Outside Cairo an exhumation was carried out with a certain ceremony. I always travelled with my retinue of attendant, clerk and guard, and, as the Tabeeh el Shareh (legal doctor,) I had the privilege of having the train stopped anywhere I liked. I was met by the local mayor … and when I had finished my work I was usually entertained to lunch"*

The workload and their expertise allowed them to draw conclusions which were delivered with a confidence which might seem remarkable today. An example of the investigation of skeletal remains will illustrate this. A sacrum and two hip bones were found down a well near the River Nile. Following examination after re-articulation, the conclusions drawn included "*[The remains came] from a young woman aged 23 – 25, short and slim, [who had] walked with a limp and had been pregnant at least once…. [She had been] killed by a shotgun using home-made pellets, fired from about 3 yards in an upward direction, with the assailant standing or sitting in front of her…She survived for 7-10 days and probably died from septic peritonitis"*

Arsenic poisoning in Egypt was common, Smith noting "*I do not think there was a day during my 11 years in Cairo in which no case of arsenic poisoning was under examination in my laboratories*" Samples were taken from liver, kidney, urine and hair and, after maceration and chemical digestion, the resulting solution was examined using the Marsh Test.

Sydney Smith and Arthur Lucas (Head of the Government Analytical Laboratory) carried out pioneering work on ballistics, particularly on rifling marks on bullets. They had plenty to work on as, following the First World War, there was nationalist unrest throughout Egypt, with riots in Cairo and Alexandria. These culminated in the death of the Sirdar, Sir Oliver Lee Stack, the head of the Egyptian Army, who was shot in Cairo on 19th November 1924, while driving home from the War Ministry. Nine cartridge cases were recovered from the scene – from 3 different weapons. Smith and Lucas were able to match a bullet taken from General Stack's abdomen with bullets test-fired from a weapon found on one of the suspects. It was the first time such evidence had been used in the courts anywhere in the world. When the defence team challenged his expertise, Smith stated: "*I have had so much experience in these things that I doubt if anybody has had more"* and this and similar work paved the way for ballistic evidence to become a reliable tool for the courts.

Smith's other contribution to forensic pathology in Egypt was the publication in Arabic of his textbook *Forensic Medicine and Toxicology* (1924) which came out before the English language version[2].

Glaister had a particular interest in blood and hairs, the focus of research in forensic science at that time being the 'key of interchange' – the evidence which a criminal leaves behind or takes away from the scene of a crime. He published *Hairs of mammalia, with a special study of human hair, considered from the medico-legal aspect,* Cairo (1931)[3] with an Atlas of 1700 photographs. Hair comparison remained an important tool in forensic science laboratories for decades to come.

On to Glasgow

Glaister's interest in hairs continued on his return to Glasgow in 1932 and he extended it into drug analysis. In the 1950s he was made aware of a new scientific technique called activation analysis and asked to consider its application to forensic medicine, particularly in the detection of toxins in hair He employed a young researcher, Dr Hamilton Smith, to look into this. Hamilton Smith duly developed methods to be able to detect arsenic in a single hair and to measure relative concentrations along its length. In 1961, Hamilton Smith was sent a lock of hair to analyse for arsenic. He was not informed of the source. He detected arsenic at a level of 10.3µg/g and concluded that the subject had been exposed to relatively large amounts of arsenic. He was then informed that the hair came from Napoleon Bonaparte, taken by his valet the day after Napoleon's death. Did this therefore indicate that Napoleon died from arsenic poisoning and thus help to prove a theory which had circulated ever since the time of his death?

Back to Napoleon

We last met Napoleon during his Egyptian campaign in 1798. The following year he left Egypt for campaigns in Europe, among which were the battle of Austerlitz (1804), the Peninsular War (from 1808) and the Russian Campaign (1812), and finally the battle of Waterloo (1815) where he and his forces were defeated. After Waterloo he surrendered to the British and was imprisoned on the remote island of St Helena in the South Atlantic, 1200 miles from the African coast. On St Helena Napoleon was held in virtual house arrest in Longwood House but was allowed to be looked after by his own officers and staff. Longwood was high up on a plateau and very humid. Napoleon was watched over by a garrison of 2100 British soldiers and a squadron of ships.

During his 6 years on St Helena Napoleon suffered continued and worsening ill health. At various times his symptoms included weakness, abdominal discomfort, nausea and anorexia, swollen ankles, alternating somnolence and insomnia and loss of body hair. However, he also gained weight. He was treated by a series of doctors (including his personal physician François Carlo Antommarchi and British military doctors, Dr Barry O'Meara, Dr Archibald Arnott[4] and Dr John Stokoe) who diagnosed mainly dysentery (at that time this meant any condition where the predominant symptom was diarrhoea) and chronic hepatitis (at that time this meant any disease of the liver, often linked to a poor climate). They prescribed mercury purgatives, bleeding and enemas, but to no avail. The Governor, Sir Hudson Lowe, would not countenance the diagnosis of hepatitis, as it implied that he was keeping his very important prisoner in less than healthy conditions.

Napoleon's condition steadily worsened, with increasing weakness, nausea and abdominal pain. Doctors came and went but he died on 5th May 1821. Two days later, there was a post mortem examination, (as Napoleon had instructed there should be). It was performed on a trestle table in the billiard room at Longwood House and 17 people were present: 8 doctors, 2 French officers, 3 British officers, 1 priest and 3 valets or attendants. Only one, Dr Antommarchi, had any pathology expertise. The post-mortem findings were that '*The pylorus of the stomach was adherent to the under-surface of the liver and there was an ulcer penetrating the full thickness of the wall'* and that the '*The internal surface of the stomach was a 'mass of cancerous disease', particularly near the pylorus. The stomach was full of coffee-ground fluid'* The general consensus was that the cause of death was Cancerous Ulcer of the Stomach. It was also observed that there was a great deal of fat around many of the organs, that there were blood-stained pleural effusions and that the liver was enlarged.

In the report issued by the British doctors on 8th May 1821 and signed by Thomas Shortt MD, Arch Arnott MD, Charles Mitchell MD, Thomas Burton MD and Matthew Livingston, surgeon (a copy of which is held by the Aberdeen Medico-Chirurgical Society)[5] there was no mention of an enlarged liver (but the Governor had censored an early report). However, Antommarchi, who issued his own report, did mention an enlarged liver, implying chronic hepatitis. The general view from all sides was that Napoleon died of cancer of the stomach. There was, at this stage, no mention at all of the possibility of poisoning, far less any talk of arsenic. This was something that did not appear for more than 100 years

Forward to the 1950s and to Glasgow

In 1955 the Swedish dentist and part-time toxicologist, Sten Forshufvud, developed an interest in Napoleon's death and became convinced of the possibility of arsenic poison. It was he who had traced a sample of Napoleon's hair and who had sent it to Glasgow in 1961 where, with the new techniques now available, a high level of arsenic had been detected[6]. Initially it was not possible to say whether the arsenic represented a one-off dose or was an accumulation from chronic poisoning over a period of time. However, with developments in the activation analysis technique in the Glasgow department and the securing of additional hair samples, it became possible to demonstrate a pattern of chronic poisoning over four or more years. It could not, of course, tell whether this was accidental poisoning or deliberate poisoning by another or others, although for Forshufvud, the finger pointed to deliberate poisoning by one of the French officers with Napoleon at Longwood, Count Montholon[7].

Natural Causes or Deliberate Poisoning?

This has been the subject of much debate over many years, with different views being expressed. Napoleon's symptoms and signs included weakness, abdominal discomfort, nausea and anorexia, swollen ankles, alternating somnolence and insomnia and loss of body hair. But he also had weight gain.

Weakness, abdominal discomfort, nausea and anorexia are common to both gastric carcinoma and arsenic poisoning. Swollen ankles would fit with gastric carcinoma but not arsenic poisoning, while somnolence and insomnia and loss of body hair are features of arsenic poisoning. However, weight gain would not be expected in either.

Signs of arsenic poisoning also include skin changes such as pallor, erythema, and hyperkeratosis and the development of peripheral neuritis, but these were not described in Napoleon. Something often put forward in support of arsenic

poisoning was the reported remarkable preservation of Napoleon's body when it was exhumed 19 years later to allow a 'proper' burial in Paris.

Who knows? He may even have had both!

Summary

Napoleon's invasion of Egypt in 1798 resulted in the growth of science, law and the arts in the country. These systems were inherited by the British when they took over 80 years later. They brought their own officials (and doctors). Two of the later doctors were Scottish forensic pathologists. One of them had an interest in hairs. This subsequently led to the analysis of a sample of Napoleon's hair in Glasgow and possibly explained the true cause of his death on a lonely island in the South Atlantic.

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THE POLISH SCHOOL OF MEDICINE (1941-1949)
THE DOORS THAT WOULDN'T CLOSE.

The Nazi invasion of Poland on 1st September 1939 led to the effective destruction of normal academic life. All academic activities thereafter were forced underground and then only survived at peril of discovery, with severe punishment ensuing for those participating in or facilitating it.

After the fall of France in June 1940, many Poles, including senior academics, arrived in Britain with the Polish Army. Arrangements were made for doctors to maintain their skills by attending wards and clinics in military hospitals, such as that established in Edinburgh Castle, where Professor Francis AE Crew was the Commandant. With his help, and thanks to the great compassion and generosity of the University of Edinburgh, the Polish School of Medicine was set up within its walls. The first Dean and Organiser of the School was Professor Antoni Jurasz, Head of Surgery in Poznan prior to the outbreak of war.
Academic staff were drawn from the pre-war Polish medical academies and faculties - Warsaw's Josef Pilsudski Medical Academy, the Jagiellonian University in Krakow, the Faculty of Medicine at the University of Poznan, the Jan Kazimierz Medical Academy in Lwow and from Wilno's Stefan Batory Medical Academy.

The initial intention had been to meet the needs of students and doctors in the Polish armed forces and indeed over 200 of the students who enrolled at the Polish School had been studying medicine in Poland (162) or elsewhere (55) at the outbreak of war.

However, it was rapidly decided that civilians should also be accepted from the outset. Some of these students, for example Drs Zbigniew Sobol and Halina Marszałek-Lewicka, finished their secondary education in Scotland before starting their medical studies in 1942 and 1943 respectively. Others, for example Dr Anna Sokołowska who obtained her Polish high school leaving certificate in Glasgow in January 1941, were able to enter First year just after the School officially opened.

Polish students matriculated at the University of Edinburgh as well as being enrolled at the Polish School of Medicine. This enabled them to join in regular Edinburgh University student clubs and activities such as sports clubs, Settlement Day and the Men's and Women's Unions. Dr Gertruda (Duda) Kuklińska-

Kolibabka (Collie-Kolibabka), a 1949 graduate of the Polish School, became President of the Women's Union in 1946/47.

Planned as a wartime initiative in the hope that it might return to Poland and spearhead the resurgence of medical academic excellence, the School was to have a limited lifespan and it closed in 1949. By then over 330 students had matriculated, 227 had graduated MB ChB and nineteen doctors (including 15 of the School's own graduates) had obtained a doctorate or MD.

Professor Jakub Rostowski, the third and last Dean of the Polish School of Medicine, unveiled the plaque in the Medical Quadrangle in Teviot Place on 15th November 1949 as his last duty as Dean. It can be seen there today.

The living spirit of the Polish School of Medicine at The University of Edinburgh

Only a few of the Polish School's graduates returned to Poland after the war. Over half remained in the UK, though some emigrated to Europe, the USA, Canada, Australia or elsewhere. Students studying in the Polish School followed a Polish curriculum, were taught mainly in Polish, and were awarded Polish degrees. In 1947 their 'Dyplom Lekarza' was recognised as being equivalent to the medical degree awarded to graduating medical students from British medical schools. This gave the graduates the ability to practice medicine, apply and compete for medical posts in the United Kingdom.

The graduates and staff of the Polish School maintained strong links with the University, holding 5-yearly reunions in Edinburgh from 1966 onwards. In 1986 they established the Polish School of Medicine Memorial Fund as an Endowment Fund at the University of Edinburgh. Over the years, thanks to careful investment, sound financial management and the very considerable generosity of the graduates and friends, the Fund has continued to grow. In 2010 the University awarded the Polish School of Medicine benefactor Status in recognition of the alumni's loyalty, commitment and generosity. Dr Maria Długołęcka-Graham received the award on behalf of the School and the graduates.

The Capital Value of the Fund as at September 2019 was around £4.4 million. The income is around £75-80,000 per annum. In line with the regulations governing the use of the income, a substantial part is used for scholarships for doctors and medical scientists from Polish medical universities to come to Edinburgh and undertake further study and undertake research. A modest amount

is used to support the Professor Antoni Jurasz lectureship which is offered every three years to a nominated Head of Department, enabling him or her to visit Poznan University of Medical Sciences and one other Polish Medical University to deliver a lecture and to meet colleagues in their particular field and foster academic links between the University of Edinburgh and counterpart Polish institutions.
Some 10-15% of the income is re-invested.

The Fund now supports a thriving scholarship programme which enables talented, early career medical scientists to undertake research and/or further study at the College of Medicine and Veterinary Medicine. To date over a hundred scholarships have been awarded to Polish medical doctors and medical scientists. Scholars have been drawn from 10 Polish medical universities and research institutes.

In November 2018 five Polish School of Medicine Memorial Fund scholars graduated. Three, from the Medical University of Lublin, Drs Anna Torres (who graduated with Merit), Kamil Torres and Grzegorz Staśkiewicz, were awarded a Masters in Clinical Education. Dr Joanna Przezdziecka-Dolyk, from Wroclaw Medical University, obtained her Masters of Surgery (ChM) in Clinical Ophthalmology with merit. Dr Krzysztof Tomaszewski, from the Jagiellonian University's Medical College, was awarded his Masters (ChM) in Surgery-Trauma and Orthopaedics with Distinction. The number of number of 'second generation' graduates has now reached double figures and whilst there is still a long way to go before it matches the original 227 of the Polish School (1941-1949), it is a wonderful legacy and one that could not have been foreseen when the School closed its doors nearly 70 years ago.

There are two other scholarship programmes linked to graduates of the Polish School of Medicine: the Dr James and Bożena Bain Memorial Fund scholarship programme and the Bóloz-Kulesza Trust Fund.

Dr James and Bożena Bain Memorial Fund

Dr Bożena was a 1948 graduate of the Polish School of Medicine. She was evacuated to Canada at the outbreak of World War II and finished her schooling there, matriculated at McGill University to study medicine but decided to transfer to the Polish School of Medicine where she enrolled as a second-year student.

Dr Bożena Ziółkowska and her husband Dr James Bain established this Trust Fund. Income from the Dr James and Bożena Bain Memorial Trust Fund is currently used to offer scholarships to Polish national medical undergraduates studying medicine at a Polish medical university who have been accepted for an elective attachment at the University of Edinburgh College of Medicine & Veterinary Medicine. To date there have been 55 beneficiaries of the programme.

The Bóloz-Kulesza Trust Fund was set up by the late Mrs Barbara Kulesza, widow of the 1943 Polish School of Medicine graduate, Dr Władysław Kulesza. In the early years of the Fund until several years before her death in 2018, Mrs Kulesza took a very active interest in the scholarship programme and met many of the students who benefited from the Fund. The Trust Fund is now managed by her son Marek, daughter Barbara and her grandchildren. Each year, the Trustees advise the Polish School of Medicine Co-ordinator and the University of the income available and scholarships are awarded accordingly to suitable applicants. A total of 18 scholarships have been awarded as at October 2019.

THE TWO HUNDRED AND SIXTEENTH ORDINARY MEETING

This meeting was held at the Royal College of Physicians and Surgeons of Glasgow on Saturday 14 March 2020. There were four speakers, Professor Gordon Lowe talked on the *History of Haemophilia in Scotland*, Phoebe Johnstone talked on *Health Promotion of HIV and AIDS in Edinburgh in the 1980s and 1990s*, Sylvia Valentine took as her subject *Opposition to Compulsory Smallpox Vaccination, The Scottish Anti-Vaccination League 1896-1919* and Dr Alistair Mackenzie's paper was on *The Seven Professorial Protégés of John Gillies.*

Professor Lowe's paper, which appears below, was written with Professor Christopher Ludlam

HAEMOPHILIA IN SCOTLAND

Professor Gordon Lowe and Professor Christopher Ludlam

Introduction

Haemophilias are genetic bleeding disorders, due to deficiency of circulating blood coagulation factors. Haemophilia is an X-linked recessive condition of variable severity, with a worldwide prevalence of 1 in 10,000 males; transmitted by female carriers. Patients bleed excessively following even minor trauma or

surgery (including dental extractions). Bleeding into joints (haemarthrosis) after minor trauma is characteristic of severe haemophilia, starting in childhood. It causes severe pain, swelling and immobility; and repeated bleeding results in crippling chronic arthritis. Before 1980, major consequences of inadequate prevention and treatment of bleeds included high premature mortality from fatal internal bleeding (usually intracranial, gastrointestinal or post-traumatic); and the psychosocial consequences of musculoskeletal bleeding and arthritis, including loss of education, unemployment, and chronic joint pain requiring opiate drugs with risk of addiction[1].

Following the development of blood transfusion in the 1940s, infusions of plasma and plasma products were used worldwide for treatment of bleeding in patients with haemophilia. In the UK and other countries, regional specialist Haemophilia Centres were established from the 1950s for diagnosis and registration, education of patients, families, and healthcare professionals and provision of timely treatment or prevention of bleeding episodes[1].

Haemophilia in Scotland, 1948-1979

In preparation for World War Two, all Scottish cities developed local blood transfusion services. The Scottish National Blood Transfusion Association was developed from 1941. Plasma processing for blood products was developed from 1943 in Edinburgh and Glasgow; and a national Blood Products Unit (BPU) for production of dried plasma was established at the Royal Infirmary, Edinburgh. From 1948 the Scottish National Blood Transfusion Service (SNBTS) was established as part of NHS Scotland, with Headquarters at the Royal Infirmary of Edinburgh. There were five Regional Transfusion Centres - in Aberdeen, Dundee, Edinburgh, Inverness, and the West of Scotland (Glasgow, and Law Hospital, Lanarkshire)[2].

The UK Medical Research Council (MRC) played a major role in the development of UK Haemophilia Centres, and establishing its Blood Coagulation Research Unit at the Churchill Hospital, Oxford in 1950. Leslie Davis, appointed to the University of Glasgow's Muirhead Chair of Medicine at Glasgow Royal Infirmary in 1945, specialised in haematology. His registrar, Stuart Douglas, obtained an MRC Research Fellowship at its Unit in Oxford, with Professor Glyn Macfarlane and Dr Rosemary Biggs. Using a new blood test - the thromboplastin generation test – they differentiated two types of haemophilia. Christmas Disease (named after one of the first patients described, and subsequently renamed Haemophilia B or coagulation Factor IX deficiency), was five times less common than Classical Haemophilia (Haemophilia A, Factor VIII deficiency). They

published their findings in the Christmas edition of the British Medical Journal in 1952[3].

The MRC also established Regional Haemophilia Reference Centres across the UK in the 1950s, for diagnosis; registration; issue of haemophilia cards with the patient's diagnosis, blood group, and their doctor's and Centre's contact details; and education of patients, families and local practitioners concerning prevention and management of bleeding. Douglas returned to Glasgow Royal Infirmary in 1953, and, with Davis, developed the West of Scotland Haemophilia Reference Centre; joined from 1962 by George McNicol and George McDonald – the latter developing the hospital's NHS Department of Haematology[4].

The East of Scotland Haemophilia Reference Centre was developed in Edinburgh Royal Infirmary by Professor of Therapeutics Ronald Girdwood, and haematologist Howard Davies. Regional Haemophilia Centres were established in the Department of Therapeutics at Maryfield Hospital, Dundee (William Walker then George Tudhope); in the Department of Medicine at Aberdeen Royal Infirmary (Audrey Dawson, Bruce Bennett, and Professor Stuart Douglas who transferred from Glasgow in 1970); and Raigmore Hospital, Inverness (Thomas Taylor).

All Regional Haemophilia Centres were close to the Regional SNBTS Transfusion Centres who supplied blood products for treatment – initially plasma; then from the later 1960s the first, crude, factor VIII concentrates – cryoprecipitate, and anti-haemophilic globulin which was produced by the SNBTS BPU at Edinburgh Royal Infirmary. This was renamed the Protein Fractionation Centre (PFC) in 1970, which relocated to Liberton in Edinburgh in 1974, and from the 1970s produced freeze-dried plasma clotting factor concentrates for NHS Scotland and Northern Ireland. UK policy from the 1970s was to achieve self-sufficiency in NHS-produced Factor VIII and Factor IX concentrates; which was achieved in NHS Scotland early for the latter, and by 1983 for the former. In contrast, this was not achieved in the rest of the UK[5]. John Cash, Director of the South East Scotland Regional Blood Transfusion Centre, then national medical and scientific director of SNBTS (1988-97) and President of the Royal College of Physicians of Edinburgh (1994-97) played a major role in this Scottish achievement.

Management of patients with haemophilia was coordinated in Scotland through the Scottish Home and Health Department (SHHD)[2]; and professional organisations including the UK Haemophilia Directors Organisation (UKHCDO), formed in 1969; the Scottish Royal Colleges of Physicians in Edinburgh and Glasgow; the British Society of Haematology; and the

International Society of Thrombosis and Haemostasis. The UK Haemophilia Society, formed in 1954, played a major role in education and support of patients and families, including its Scottish branches.

The Edinburgh and Glasgow Haemophilia Centres performed studies of the natural history of bleeding episodes and their consequences in patients with haemophilia, including bleeding after dental extractions[6]; bleeding into joints, muscles, urinary tract, gastro-intestinal tract, and central nervous system[7-10] premature mortality[11,12], psychosocial morbidity[13] and haemophilic arthritis[14].

By 1964, viral hepatitis (jaundice) was well established worldwide as a common complication of treatment with blood or plasma. In Scotland, the risk was 1 in 200 recipients of a single donation of blood or plasma[2]. Following the introduction of cryoprecipitate for more effective treatment of haemophilia A in the late 1960s, viral hepatitis was also reported[15]. The adult treatment dose of cryoprecipitate was prepared from 10-20 units of plasma, resulting in a calculated risk of hepatitis[2] of between 1 in 10 and 1 in 20 treatments. The identification of hepatitis B virus (HBV) and antigen tests from 1970 allowed testing of blood donors for exclusion; however, these tests initially had low sensitivity, resulting in continued exposure of patients with haemophilia to HBV in SNBTS blood products, and raised serum transaminase levels which were not associated with HBV or hepatitis A virus (HAV), and attributed to possible non-A non-B (NANB) hepatitis[16-18].

Subsequently, Scottish Haemophilia Centres and SNBTS both sought to reduce the risk of hepatitis by pioneering research into alternative treatments to blood products for patients with haemophilias. The Glasgow Royal Infirmary Centre pioneered clinical trials of synthetic fibrinolytic inhibitor drugs (epsilon-aminocaproic acid, then tranexamic acid) in prevention of bleeding episodes in patients with haemophilia[19,20]. While these drugs were not effective in preventing joint and muscle bleeding [19], tranexamic acid was effective in minimising plasma use and hepatitis risk after dental extraction and other types of minor surgery in patients with mild or moderate haemophilia A[20]. In 1974, John Cash and colleagues reported that intravenous infusion of the synthetic vasopressin analogue desmopressin raised blood levels of factor VIII[21]. Such elevations were later shown to be sufficient to treat minor bleeding and to prevent bleeding following dental extractions or other minor surgery in patients with mild haemophilia A, reducing the use of blood products and the risk of viral hepatitis[22,23].

From the mid-1970s, the increasing availability and affordability of factor VIII and factor IX concentrates in Scotland, the UK and other developed countries, reduced the high premature mortality in patients with haemophilia[12,24,25]. However, a subsequent UKHCDO report[26] commented that some deaths were missing in the previous UKHCDO report[24], which wrongly concluded that there was "a near normal expectation of life."

Concentrates also facilitated home treatment for patients with severe and moderately severe haemophilia, which allowed early treatment of bleeds; reduced hospital attendance and loss of time in education and work; and improved patient experiences of health and lifestyle[27].

Haemophilia in Scotland, 1980-2020

During the 1980s and 1990s, there were major changes in haemophilia management and in haemophilia centres across Scotland. Multidisciplinary teams developed, in addition to existing physicians, haematologists, nurses, dentists and social workers; and from 1993 were mandated by the UK Departments of Health. To support consultant medical staff, associate clinical specialists were appointed for daily medical management, replacing rapidly changing rotating junior staff. Additional nurse specialists were appointed to train patients and their families in home treatment, and to monitor it. Physiotherapists, rheumatologists and orthopaedic surgeons jointly managed musculoskeletal complications, including knee replacement surgery, which like other major surgery was now safely performed under concentrate cover[28].

In the Glasgow Royal Infirmary Centre, Douglas then McNicol were succeeded as Co-Director in the Department of Medicine by Colin Prentice, Charles Forbes, then Gordon Lowe; and McDonald was succeeded as head of the Department of Haematology and Co-Director by John Davidson and Isobel Walker. At the Glasgow Royal Hospital for Sick Children Centre, Michael Willoughby was succeeded as Director by Ian Hann, Brenda Gibson, then Elizabeth Chalmers (4). In the Edinburgh Royal Infirmary Centre, Davies was succeeded by Christopher Ludlam, who was joined by Lishel Horn and Julia Anderson; and Angela Thomas was appointed Co-Director at the Edinburgh Royal Hospital for Sick Children. In the Dundee Centre at Ninewells Hospital, Tudhope was succeeded by Andrew Hepplestone then Philip Cachia, then Ron Kerr. In Aberdeen Royal Infirmary, Henry Watson succeeded Dawson and Bennett. In Raigmore Hospital, Bill Murray succeeded Turner.

To facilitate coordination of management of haemophilia by SHHD, Haemophilia Centres and SNBTS, their annual joint meetings were supplemented from 1983

by regular meetings of Centre and SNBTS Directors, initially chaired by McDonald.

The major challenge to haemophilia care from the 1980s in Scotland, the UK and other developed countries was the increasing burden of transfusion transmitted infections. Between 1980 and 1985, there was increasing evidence, from liver biopsy studies, of progressive NANB liver disease – chronic persistent hepatitis and cirrhosis[5,29,30]. In addition, from 1983, the Acquired Immunodeficiency Syndrome (AIDS) was recognised in recipients of blood products, including patients with haemophilia, initially in the United States, and from 1984 in Europe including the UK. Its cause, human immunodeficiency virus (HIV) was identified in 1983, and, during 1984, screening with initial HIV tests of UK blood donors and patients with haemophilia confirmed positivity[5]. The incidence of HIV positivity in patients with haemophilia was lower in Scotland (11%) than in the rest of the UK (19%), due to achievement of near-self-sufficiency in NHS Scotland in Factor VIII concentrates by 1983[5]. However, identification in late 1984 of HIV positivity in patients with haemophilia in Scotland who had received only SNBTS concentrates, as well as in patients who had received commercial concentrates from American donor plasma, led to rapid coordinated action by SHHS, SNBTS and Haemophilia Centres in Scotland to replace SNBTS Factor VIII concentrates with virally inactivated (heat-treated) concentrates from December 1984; and likewise for SNBTS Factor IX concentrates from August 1985[5]. Blood donors were also screened for HIV and deferred[5].

From 1985, all patients with haemophilia who had received blood products were counselled about HIV risk, and tested for HIV using reliable tests in regional virus laboratories who had routinely performed HBV testing from 1970. Patients testing HIV positive were jointly managed with counsellors, and colleagues in Infectious Diseases and Sexually Transmitted Diseases, who were added to Haemophilia Centre multidisciplinary teams. Local AIDS advisory and management groups were established in Scottish Cities - in Glasgow and Edinburgh these were initially chaired by Forbes and Ludlam respectively. These Centres obtained funding for additional counselling and nursing support; and studied the psychosocial consequences of HIV infection[31]. UKHCDO established an AIDS subcommittee, initially chaired by Forbes; and monitored and reported the incidence, morbidity and mortality of HIV infection[32]. Treatment of HIV infection with antiviral drugs started with zidovudine, and progressed over the next 20 years to viral suppression with triple drug therapy; a strategy similarly developed for eradication of HBV infection.

Routine HBV vaccination was offered to patients with haemophilia across the UK from 1985. The initial heat treatment of SNBTS Factor VIII concentrates was found in 1986 to still carry a risk of transmission of NANB hepatitis, so its duration and intensity was increased from August 1987, which proved sufficient to prevent transmission of HIV, HCV and NANB[33]. UKHCDO issued evidence-based guidance for selection of blood products for treatment from 1988, based on evaluation of data for risk of transmission of HIV and NANB hepatitis; and this guidance was regularly updated thereafter.

As a result of an increasing number of developing issues by 1985, Ludlam was invited by SHHD to convene and chair regular meetings of Haemophilia Directors in Scotland and Northern Ireland (HDSNI) to consider arrangements for haemophilia care and development of services (co-chaired with Lowe from 1988). Its activities included provision and use of appropriate products; therapy recommendations (including UKHCDO guidance); and clinical audit of haemophilia centres - in Scotland and Northern Ireland from 1990, and in the rest of the UK through UKHCDO from 1992.

In 1988 Ludlam was asked by SHHD to convene a Factor VIII Working Party, representing Centre and SNBTS Directors and SHHD, with a remit to recommend methods and strategies for the validation and testing of existing and new factor VIII products supplied by PFC; monitor real-time usage; and predict future demand. Its remit broadened into other coagulation factor concentrates, and it was therefore renamed the Coagulation Factor Working Party for Scotland and Northern Ireland (CFWP). It continued until 2008 when SNBTS ceased production of clotting factor concentrates, and during this time it was the central forum for oversight of clotting factor concentrate development and availability, and provision of the haemophilia service in Scotland**.** It reported to the annual meeting of all SNBTS and haemophilia Centre Directors, chaired by senior NHS Scotland officers such as the Chief Medical Officer. Professor Girdwood represented the SNBTA and hence blood donors.

The CFWP agreed how PFC concentrates should be distributed between haemophilia centres; and a unified system was established for the purchase of commercial concentrates as required. Development of SNBTS concentrates became its most important responsibility. The deliberations considered the options for developing the most appropriate type of product, including initial pharmacokinetic assessment of higher purity concentrates of Factor VIII and Factor IX, through formal clinical trials for efficacy and safety, up to licensing. Previously untreated patient (PUP) studies[33] and pharmaco-vigilance studies

were established to assess viral safety of concentrates; and a data safety monitoring committee established.

The hepatitis C virus (HCV) was discovered as the cause of NANB hepatitis in 1989[5, 29,30]. Following the development of reliable tests for HCV exposure and carriage, from 1991 UK blood donors and patients with haemophilia were screened routinely in regional virus laboratories. Those identified as HCV carriers were counselled, advised on precautions to reduce risk of transmission, and referred to liver disease / infectious disease clinics for follow-up and treatment, in accordance with UKHCDO guidelines. Hepatologists and HCV specialist nurses were therefore added to Haemophilia Centre multidisciplinary teams.

UKHCDO monitored the development of liver disease and HCV[34]. In 2007, a reconstruction of the hepatitis C epidemic in the US haemophilia population, 1940-1990, suggested that HCV incidence peaked between 1968 and 1970, particularly before concentrates were licensed in the 1970s. The incidence declined from 1970 to near zero by 1990 when HCV was discovered; and was attributable to blood donor deferral, screening for HBV then HIV then HCV, and viral inactivation of concentrates[30]. The authors suggested that validation in another population with good mortality data, such as the United Kingdom (UKHCDO) database, would be helpful. In 2013, Scottish Haemophilia Centre Directors reported a long-term follow-up of liver disease and its management, with results comparable to those in other reported cohorts[35]. As with HBV, HCV eradication was eventually achieved in many patients by triple antiviral therapy.

It is historically interesting that the suppression of HIV, and the eradication of HBV and HCV, in patients with haemophilia followed the principles developed first in Scotland for the control of the early global pandemic of pulmonary tuberculosis – "test, trace and treat" – the latter with triple therapy using three antimicrobial drugs with different pathways of action. In Edinburgh in 1887, Robert Philip introduced a scheme for its management by "test, trace and treat". Anyone thought to be suffering from the disease could be referred to a public dispensary for diagnosis and assessment. If they were found to have active disease, their families, and as far as possible their close contacts, were also assessed. Those with early-stage disease were isolated in a sanatorium to prevent spread of disease. Those who improved through treatment with rest and diet were transferred to a colony for gradual return of normal activities under supervision at home[36].

Antibiotics effective for treatment of tuberculosis (streptomycin, PAS, isoniazid and rifampicin) were available from the 1950s, but many patients developed resistance to treatment with single drugs. In Edinburgh, a team led by John Crofton pioneered the use of 'triple therapy' - a combination of three drugs with different mechanisms of actions, which reduced the risks of resistance and treatment failure. Their study was one of the first randomised controlled trials, whose evidence remains a cornerstone of evidence-based medicine. The availability of successful treatment led to the introduction of routine screening of high-risk populations for asymptomatic infection with pulmonary tuberculosis from the 1950s, using mass miniature chest X-ray programmes. Scotland, especially Glasgow, had the highest incidence of tuberculosis in Britain; and a high public response rate and detection rate of active disease [37].

UK financial compensation for transfusion-transmitted infections progressed from the late 1980s, through the McFarlane Trust and Skipton Fund. The impact of transfusion transmitted infections on haemophilia care in Scotland (1980-95) was reported in 2000[38]. While life expectancy was increasing, there was an increase in hospital admissions, due to clinical HIV and HCV, and increased mortality from HIV, HCV and bleeding. New Haemophilia Centres, with expanded facilities and staff, were opened in the Glasgow Royal Hospital for Sick Children in 1996, Glasgow Royal Infirmary in 1999, where Campbell Tait became a third Co-Director, and the new Edinburgh Royal Infirmary in 2005.

A major advance in treatment of haemophilia was the licensing of commercial recombinant (non-human donor) Factor VIII and Factor IX concentrates in the UK from 1994. In 1996, the revised UKHCDO guidelines (now fully evidence based using international criteria) recommended the progressive, prioritised replacement of human donor plasma concentrates by recombinant concentrates[39].

The availability of recombinant concentrates was timely, as in 1996 the final transfusion transmitted infection identified in the UK was variant Creutzfeld-Jakob Disease (vCJD), identified by the UK CJD Surveillance Unit in Edinburgh. It was shown to be due to the bovine prion previously detected in UK cattle (mad cow disease), infecting humans by eating infected bovine products; and also to be transmitted by whole blood in the UK; it did not affect other countries. As a result, whole blood from UK donors was depleted of the white blood cells which could be infected by prions. Transmission of vCJD by plasma and plasma products, including patients with haemophilia, was also theoretically possible, hence UK donor plasma and concentrates were replaced by products imported

from other countries (USA and Europe). As chair of UKHCDO, Ludlam advocated rapid progressive, prioritised replacement of human donor plasma concentrates by recombinant concentrates, despite their higher costs to the NHS[40]. From 2004 the UK Departments of Health published precautions to prevent possible transmission in patients treated with UK products since 1980 during endoscopy and surgery. While one UK patient with haemophilia was found to carry the prion at routine post-mortem in 2009, to date there have been no reported cases of vCJD in patients with haemophilia.

In 1997 Ludlam and Lowe, on behalf of Scottish Haemophilia Centres and supported by UKHCDO, organised a meeting of SHHD, NHS, SNBTS and Haemophilia Centres to progress this in NHS Scotland. At this meeting agreement was reached to establish a national consortium to take over the funding, on behalf of Health Boards, for the purchase of recombinant factor VIII for Scotland; and subsequently of all commercial concentrates. By 2002, the majority of patients in Scotland were using recombinant factor concentrates; some years before this was achieved in England. Home delivery of concentrates to patients started in 2007.

From 1999, annual meetings of HDSNI were held with patient representatives (including from the Haemophilia Society UK and its Scottish branches), which were valuable for feedback and dialogue on the service. From this time, these were combined with annual meetings with haemophilia nurses, who also had their own meetings to co-ordinate and develop the service. Such tripartite meetings were effectively a Scottish version of the UK Haemophilia Alliance, which developed from 2000.

Recent developments in haemophilia care from 2000 include the development at Edinburgh Royal Infirmary of a National Laboratory Genetic Service for carrier detection; the development of prophylactic home treatment for children with severe haemophilia, which appears to have finally reduced premature mortality from intracranial bleeding[26]; the use of longer acting concentrates which require less frequent injections; and gene therapy which increases low plasma levels of factor VIII or Factor IX (starting in 2017 in Glasgow Royal Infirmary). In 2015 the Penrose Inquiry Final Report on HIV and HCV transfusion transmitted infections was published, giving a detailed account of its investigations, and making only one recommendation: to ensure all patients receiving blood transfusions before 1991 received an HCV test [5].

In conclusion, increasingly effective treatments for patients with haemophilia had, by the 1980s, reduced their painful and disabling bleeding episodes, crippling arthritis, and premature death from major bleeds. Very sadly, from 1985 these advances were mitigated by the increasing morbidity and mortality of transfusion-transmitted infections: HIV and hepatitis B and C. In the current century, use of non-human factor concentrates is predicted to maintain low bleeding rates and achieve near-normal life quality and expectancy, without further risk of such infections.

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A summary of Phoebe Johnstone's presentation appears below.

HEALTH PROMOTION OF HIV AND AIDS IN EDINBURGH IN THE 1980s AND 1990s

Summary

This paper was based on primary source material held by Lothian Health Services Archive (LHSA) inside their UNESCO-recognised *Edinburgh and Lothian HIV/AIDS Collections*[1]. 11 collections cover the period from 1983 to 2010, thus spanning the height of the Human Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) epidemic in Edinburgh, and holding a range of documents and objects, varying from local government policy papers, to health promotional campaign posters, T-shirts, pill packets and condoms.

Although the first case of AIDS in Edinburgh was reported in 1984, investigation subsequently showed that HIV had been present in the city from 1982[2], in intravenous drug users (IVDU), who were often forced to share injecting equipment. It is estimated that between 1983 and 1984 alone, over 1000 IVDU were infected with HIV[3]. This young, sexually active cohort posed a threat to the wider population via heterosexual spread, and hence measures were required to prevent, where possible, a second wave of the epidemic.

A coalition of health professionals, (Lothian Health) local authority groups (Lothian Regional Council) and voluntary organisations (Scottish Aids Monitor) acted by producing a series of health promotional campaigns, in order to promote healthy and safe sexual practice, and educate the community about the risks of HIV and AIDS. These included the 'Take Care' campaign and the C Card, an initiative to make condoms more available to the public Many of the strategies utilised by Lothian were pioneering; using distinctive imagery and novel marketing techniques. Despite aiming these campaigns at the broader community however, they often excluded certain high-risk populations, such as drug users and gay men, and subsequently these demographics had to turn to other services for health education and promotion.

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A full version has been published as a paper in the Journal of the Royal College of Physicians of Edinburgh, 2021; 51: pp 192-198

https://www.rcpe.ac.uk/college/journal/time-take-care-fighting-hiv-health-promotion-edinburgh-1983-1996

An abstract of Dr Mackenzie's paper appears below

THE SEVEN PROFESSORIAL PROTÉGÉS OF JOHN GILLIES

Abstract

John Gillies was the founding head of the Department of Anaesthetics at the Royal Infirmary of Edinburgh, which began in 1940. An astute educator, he was instrumental in establishing anaesthesia as a medical specialty, on equal footing with surgery, from the start of the National Health Service in 1948. Gillies's kudos attracted medical graduates from the UK, USA and Canada to work in his Department. The excellence of his teaching and mentoring may be judged from the fact that no less than seven of his protégés became professors of anaesthesia/anaesthesiology. The seven protégés were as follows.

1. Nicholas M. Green (1922-2014) – appointed Professor of Anesthesiology at Yale in 1955.
2. James Gordon Robson (1921-2007) – appointed Wellcome Professor of Anaesthetics at Montreal in 1956; Professor of Anaesthesia at the Royal Postgraduate Medical School, London from 1964.
3. Alastair J. Gillies (1924-2014) – appointed Professor of Anesthesiology at Rochester, New York in 1959.
4. Stuart L. Vandewater (1924-2011) – appointed Professor of Anaesthesiology at Kingston, Ontario, Canada in 1960.
5. James P. Payne (1922-2015) – appointed BOC Professor of Anaesthetics at the Royal College of Surgeons of England in 1963.
6. James Donald Robertson (1917-1989) – appointed Professor of Anaesthetics at Edinburgh in 1968.
7. Ronald A. Millar (1924-2015) – appointed Professor of Anaesthesia at Glasgow in 1972; Professor of Anesthesia at St. John's, Newfoundland from 1976.

The full paper is published in the Journal of Anesthesia History 2020; **6**:12-17
www.anesthesiahistoryjournal.org

This meeting in Glasgow was followed by significant national disruption to social meeting as a result of the Coronavirus pandemic, which began to make its effect felt shortly afterwards. The Haldane Tait meeting was postponed and the Society's summer meeting, usually held in June, was cancelled. The Council held an online Zoom meeting, chaired by the President, Dr Neil MacGillivray, at which matters relating to the Society were discussed. This meeting confirmed that the Society's accounts had been seen by OSCR and had been approved. With the meeting in Glasgow, the formal 2019-2020 session of the Society effectively came to a close.

The Scottish Society of the History of Medicine

Constitution as revised at AGM of 1999

1. The Society shall be called "THE SCOTTISH SOCIETY OF THE HISTORY OF MEDICINE," and shall consist of those who desire to promote the study of the History of Medicine.

2. A General Meeting of Members shall be held once a year on the last day of October or within four weeks of that date, to receive reports and to elect Members of Council and (when required) Office Bearers. The quorum shall be 20 members and decisions shall be taken by a majority. The President shall have a casting vote, and there shall be no proxy voting.

3. The management of the affairs of the Society shall be vested in a Council, comprising a President, a Vice-President (serving as Deputy President and President-Designate), a Secretary, and a Treasurer (the four Office-Bearers), along with nine other members ("Ordinary Members of Council"). The immediate Past President may also be included as a member of Council, as provided below.
The quorum at Council meetings shall be six and there shall be no casting vote.

4. The President and Vice-President shall be elected at an Annual General Meeting, to serve normally for a tenure of three successive years, and shall not hold their post for more than three successive years, but shall be eligible to serve again after the lapse of one year if re-elected. In addition, the immediate Past President may remain a member of Council for two years after the end of his or her term of office as President.

The Secretary and Treasurer shall be elected at an Annual General Meeting, to serve normally for a tenure of three successive years, and shall be eligible to serve again if re-elected, but should not normally hold office for more than six consecutive years.

The names of all candidates for election as Office-Bearers and of their proposers shall be made known to the Secretary before the Meeting at which election is to take place.

5. Any Office-bearer may be required to retire from office by resolution at any AGM, but the proposer and seconder of the resolution shall give a month's notice in writing to the Secretary (or in the case of the Secretary to the President), and the resolution must be pre-circulated to Members in the papers for the AGM.

6. Three Ordinary Members of Council shall be elected at each Annual General Meeting, to serve normally for a tenure of three successive years, and shall not be eligible for re-election at the end of their tenure until a year has elapsed; each year, the three Ordinary Members most senior by date of election shall demit office. If an Ordinary Member is otherwise unable to complete his or her term of office, the Council shall co-opt a replacement to complete the term, and this replacement shall be eligible at the end of the term to be elected for a further full term, despite having already served part of a term.

7. The Council shall have power to co-opt at any time other members who in their opinion are fitted to render special service to the Society. Such co-opted members shall be in addition to those in clause 6 above, and the co-option shall require the approval of each subsequent Annual General Meeting if it is to continue further.

8. To recognise outstanding service to the Society or to Medical History in general, upon occasion an Honorary Member of the Society may be elected at any Annual General Meeting. Any name proposed (with the name of a proposer and seconder, and details of the case) must be intimated in writing at least three months before the meeting to the Secretary, so that they are included in the pre-circulated Agenda for the meeting. Honorary Members shall pay no subscription.

9. The Annual Subscription shall be reconsidered from time to time by Council and reported to the Society at the Annual General Meeting.
The Subscription (or revised Subscription) will fall due immediately following the AGM. A Member whose subscription is outstanding for a full year shall cease to be a member of the Society.

10. The Council shall ensure that full and punctual Accounts are kept for the Society and shall cause to be prepared once a year a Statement of Accounts and a Balance Sheet for the previous year.

11. The Society's funds shall consist of funds in the hands of the Treasurer, together with other sums of money and securities. These funds shall be held by the Treasurer, acting with the President and the Secretary (the Trustees), in trust for the Society's aims and objects, and in furtherance of this purpose the three Trustees shall have the following powers:

(a) Payments shall be made out of income or capital of the Society as the Trustees shall determine; all cheques shall require the signatures of two of the three Trustees.

(b) The Trustees may purchase and sell stocks, bonds, securities and other investments.

(c) The Trustees may delegate the management and investment of the Society's funds to the Treasurer and will consult with him on a regular basis as to the performance of the investments and assets comprising the Society's funds.

12. The Secretary shall keep brief Minutes of the proceedings both of the AGM and of the Council, shall prepare Agenda, and shall conduct the correspondence of the Society.

13. Meetings shall be held at least twice yearly, and the place of meeting shall be in any of the University centres, or elsewhere, as the Council may decide.

14. This Constitution may be amended at any General Meeting of the Society on four weeks' notice of the proposed amendment being given by the Secretary, such amendment to be included in the Agenda circulated for the Meeting. No such alteration or amendment shall have the effect of prejudicing the Society's charitable status in law.

15. The Council may resolve that the purposes for which the Society's funds are held can no longer be carried out by them or could be carried out more efficiently by some other body, fund or institution, and shall so report to a General Meeting of the Society; and if the General Meeting agrees, require the Trustees to make over the Income and Capital of the Society's funds to that other body, fund or institution whose aims and objects most closely resemble those of the Society, and so bring the Society to an end.