A historical account of the doctor's bag

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Background

A household phrase of yesteryear was the doctor's 'little black bag'. Where did this phrase come from and how did it evolve?

Objectives

The objective of the article is to outline the history of the medical bag and its contents, from early times to the present day, by using library research methodology.

Discussion

The first mention of a medical bag is in the *Hippocratic Corpus* around 350 BCE. This demonstrates that since ancient times, medical practitioners have carried some equipment and medications with them when they visited their patients, the exact contents changing over time.

The idea of the doctor's 'little black bag' could be described as part folklore and part reminiscence of earlier times when home visits were a regular part of medical practice, even if most of the bags were not actually black. But when did this concept begin and how did the doctor's bag evolve?

Origins and evolution of the doctor's bag

At least part of the answer to the question above lies in antiquity. The small treatise in the *Hippocratic Corpus* known as 'Decorum', dated to about 350 BCE, describes how the medical practitioner should carry a small case fitted to hold the necessary items required when visiting patients.[1] Another example is an instrument case illustrated in an Egyptian temple (Figure 1), from about 100 BCE.[2] So, the evidence suggests that from early times, medical practitioners carried certain drugs and instruments with them when they visited their patients.

The earliest Australian doctors were ship, naval or military surgeons.[3] At that time, all surgeons in the employment of the army or navy were obliged to have a set of surgical instruments of an approved type, which were stored in a chest or box. These approved sets were listed in surgical instrument catalogues. In 1885, one such kit in a 'mahogany case, brass bound, lined with silk velvet' cost £16, a princely sum at the time.[4,5]

A complementary item, especially in locations beyond timely medical assistance, was the medicine chest, which was available from local pharmacies. These varied in size but contained a range of prepared and basic ingredients, balance scales and weights,

Figure 1. Ancient Egyptian surgical instruments

as well the means to enable the user to compound their own medicines.

In the eighteenth and nineteenth centuries, city doctors either walked or carried their equipment by horse and buggy, whereas country doctors often needed to carry it in their saddle bags. Hence, medical bags needed to be readily portable and easily accessible while still containing everything that was needed for any circumstance that might arise. The Gladstone bag admirably fulfilled that purpose (Figure 2). In use for more than a century, this mid-nineteenth century bag was created by J. G. Beard, a London leather dealer, who named it after William Gladstone, the British Prime Minister, whom he greatly admired. This bag opened widely from the top and enabled the doctor to take out whatever was needed with relative ease. More recently, bags called 'surgeons' bags' were made with drawers, with formal spaces for the sphygmomanometer and various drugs and dressings.[6,7]

When I began practising as a general practitoner, in the 1960s, my first bag was of the Gladstone type. I then moved to a surgeon's bag, but when doing 30–40 house calls every day, it did not last long. My current bag is of a more recent design that opens flat in two sections, each divided into formal spaces for all needs. Mine is a little the worse for wear after thirty years, but it is still going strong.

Contents of the doctor's bag

Until very recently, home calls were the norm for the acutely ill and those who were too frail to come to the practice. Infectious diseases were rife and isolation from others in the waiting room was difficult for a solo or small group practice such as mine. It was easier to visit the patient at home. Consequently, the GP had to carry an assortment of drugs and dressings, as well as the customary collection of diagnostic instruments. To fully understand the evolution of the doctor's bag, one also has to understand the types of drugs and diagnostic methods used at the time.

Prior to The Royal Australian College of General Practitioners (RACGP) formalising the contents of the doctor's bag in relatively recent times, historical accounts suggest considerable variability.[8–10] In the twentieth century, the bag contained a range of diagnostic instruments, including the stethoscope, clinical thermometer and tongue depressor (made of metal that could be boiled – disposables are recent arrivals); some form of illumination, such as a torch, plessor, ophthalmoscope and auriscope; a test tube or two; and bottles of Benedict's reagent and acetic acid to complete the kit. A sphygmomanometer did not become a routine diagnostic instrument until the 1920s, but thereafter, a cumbersome and heavy mercury manometer in a wooden or metal box became another item to be carried in the doctor's bag.[11]

Prior to the relatively recent advent of urine test strips, urine was boiled and acidified to test for protein, while glycosuria was found by boiling urine with Benedict's reagent. There were no disposable syringes either. For general use, a syringe and needles kept in a spirit-proof case served, and would be rinsed in boiled water before use. The spirit-proof case was a metal container that held one syringe and six needles in methylated spirits and was screwed down to minimise the risk of leaks. The clinical thermometer was also often kept in a spirit-proof case. Larger syringes and instruments could be boiled in a saucepan on the kitchen stove. More recent changes in equipment carried are detailed in Table 1.

Figure 2. The Gladstone bag

Table 1. Tools change in the doctor's bag over time

1920–30[7,8]	1981[12]
• Stethoscope • Sphygmomanometer • Clinical thermometer • Auriscope • Ophthalmoscope • Tongue depressor • Torch • Plessor (reflex hammer) • Syringes and needles in spirit-proof case • Cotton wool in spirit • Ethyl chloride spray (for local anaesthesia) • Scalpels and other surgical instruments • Catheters • Chloroform and dropper bottle • Assorted dressings • Plaster bandages • Soap	• Stethoscope • Aneroid sphygmomanometer • Thermometer • Auriscope • Ophthalmoscope • Tongue spatulas • Pencil torch • Plessor (reflex hammer) • Disposable sterile syringes and needles • Alcohol swabs • Disposable gloves • Oral airway – Resuscitube or Guedel • Disposable scalpel • Artery forceps • Scissors • Butterfly needles • Velcro tourniquet • Paper bag (to treat hyperventilation) • Steristrips • Ampoule file • Urine test sticks – Dextrostix and Labstix • Sample containers, swabs, transport medium • Stationery – prescription pads, note paper and envelopes, ball point pen, psychiatric recommendation forms

House calls

In the 1960s, home visits were common. Many calls were at night, so the GP needed to carry an assortment of drugs for the emergency call. These ranged from syrup of ipecacuanha to diuretics and antibiotics. Although nearly all the drugs were in ampoules, hypodermic tablets were still used occasionally. The tablets were stored in a small glass tube and, once dissolved, boiled in a teaspoon of water over the stove before being injected.

After hours, acute pulmonary oedema and asthma were common problems. There was no frusemide until well into the 1960s, so theophylline was used for pulmonary oedema and asthma that did not respond to adrenaline. There was no diazepam either, so fits were treated with injectable phenobarbitone or intramuscular paraldehyde. If an ampoule of paraldehyde broke, well, the smell was appalling. Penicillin injections were the antibiotic of choice once they arrived in the late 1940s. More recent changes in medication carried are detailed in Table 2.

Table 2. Medication changes in the doctor's bag over time

1960s (author's own experience)	1981[12]	2000[13]
Injectable	**Injectable**	**Injectable**
• Adrenaline	• Adrenaline	• Adrenaline
• Aminophylline	• Aminophylline	• Benztropine
• Atropine	• Atropine	• Benzyl penicillin
• Chlorpromazine	• Benztropine	• Diazepam
• Dextrose 50%	• Dextrose 50%	• Frusemide
• Digoxin	• Diazepam	• Glucagon
• Ergometrinw	• Ergometrine	• Haloperidol
• Mephentermine*	• Frusemide	• Hydrocortisone
• Mersalyl†	• Hydrocortisone	• Metoclopramide
• Morphine	• Lignocaine	• Morphine
• Paraldehyde‡	• Morphine	• Naloxone
• Pethidine	• Naloxone	• Prochlorperazine
• Phenobarbitone§	• Procaine penicillin	• Promethazine
• Procaine Penicillin	• Pethidine	
• Prochlorperazine	• Prochlorperazine	
• Promethazine	• Promethazine	
	• Terbutaline	
Oral	**Oral**	**Oral**
• Aspirin	• Syrup of ipecacuanha	• Aspririn
• Phenobarbitone	• Aspirin	• Glyceryl trinitrate
• Glyceryl trinitrate	• Oxazepam	• Indomethacin
	• Nitrazepam	• Salbutamol inhaler
	• Cotrimoxazole	• Temazepam
	• Promethazine	
	• Glyceryl trinitrate	

**Mephentermine: vasopressor*
†Mersalyl: diuretic
‡Paraldehyde: sedative/anticonvulsant
§Phenobarbitone: sedative/anticonvulsant

The paperwork was much simpler, even in the 1960s. There was a red-covered book of vouchers for pensioners and one with green leaves for veterans' affairs. A pad of small letterheads served as a notepad and for writing prescriptions, using carbon paper for the second part. Record systems were simpler too. Indeed, many solo general practices did not keep records at all. Our practice used system cards, which was a convenient way to record the history, diagnosis and treatment, and allow continuity of care in a small group practice.

Conclusion

The last word on what should be carried is never going to be written. What remains of interest is the development of the doctor's bag from the earliest mention some 2400 years ago to the present. Reading the old reports and seeing what drugs and dressings were carried certainly shows the advances in drug treatment over time. Yet, if the style of bag and the science that underlies its contents have changed, the role of the GP remains the same – to provide loving care.

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Competing interests: None.

Provenance and peer review: Commissioned, externally and internally peer reviewed

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