CHAPTER III

Pharmacology

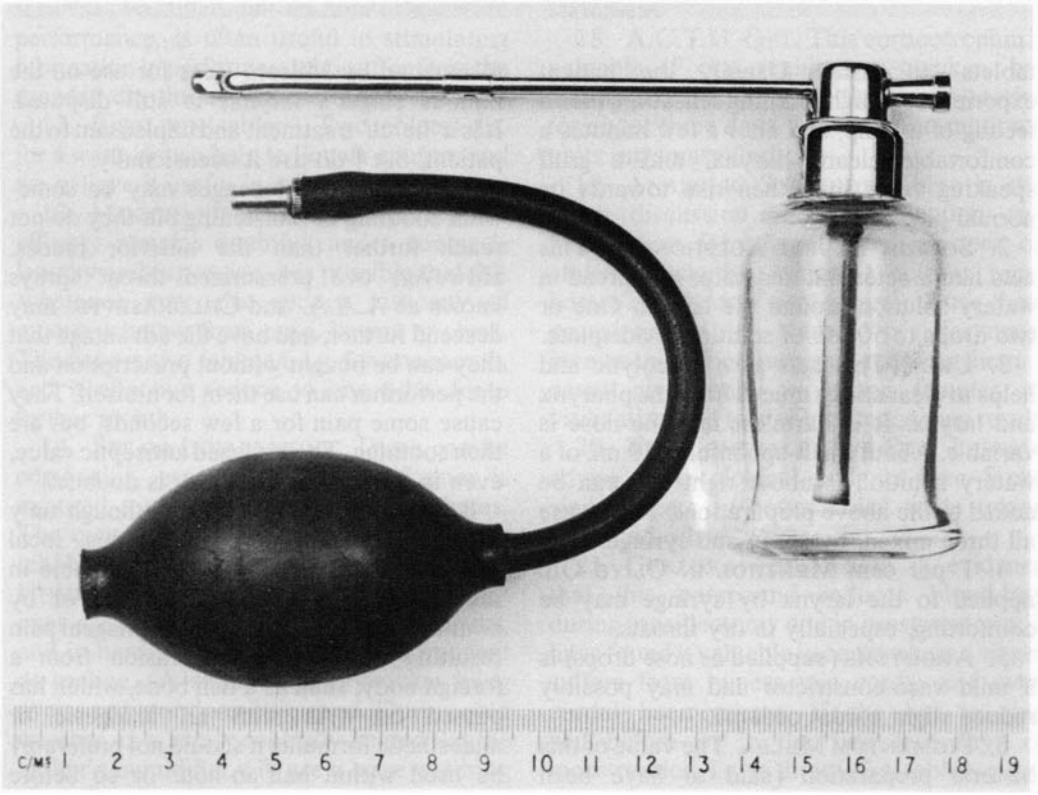
Although not customary it has seemed best to insert this chapter here as many substances are useful in a number of conditions, and repetition may be avoided.

If the larynx is to be treated by local application of a medicament an efficient de Vilbiss type of throat spray (Fig. 1) is essential, although these are hard to come by. I also use a laryngeal syringe with a fine and properly curved pipe of my own design (Fig. 2) (Punt, 1968). This has to be specially and accurately manufactured, but will fit onto an ordinary 3 ml. haemorrhoid syringe; a bayonet-type catch is most convenient as the solution may be drawn up by the syringe before the pipe is attached.

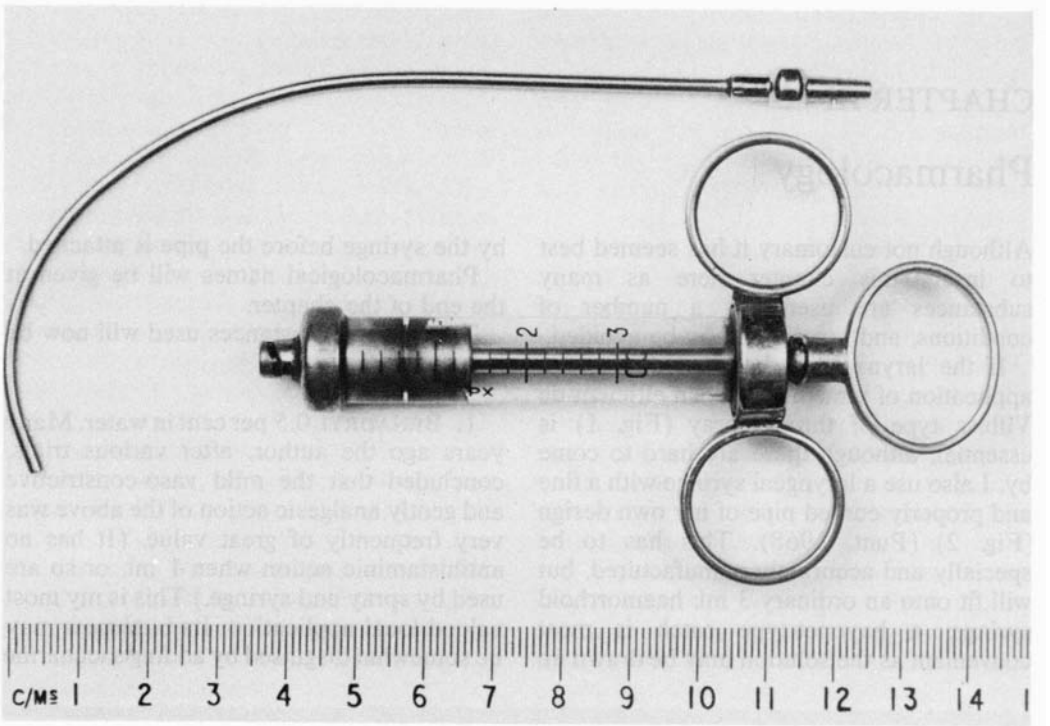
Pharmacological names will be given at the end of the chapter.

The various substances used will now be listed:

1. BENADRYL 0.5 per cent in water. Many years ago the author, after various trials, concluded that the mild vaso-constrictive and gently analgesic action of the above was very frequently of great value. (It has no antihistaminic action when 1 ml. or so are used by spray and syringe.) This is my most valued local application. Its bitterness may be somewhat disguised by adding saccharine



https://doi.org/10.1017/S0022215100095207 Published online by Cambridge University Press



tablets 'to taste'. Usually the patient experiences a slight burning sensation, then a feeling of a lump, and after a few minutes a comfortable clearer larynx, and a gruff speaking voice may then rise towards its normal pitch.

2. SODIUM LAURYL SULPHONATE. This acts like a detergent and helps to 'spread' a watery solution around the larynx. One or two drops to 50 ml. of solution is adequate.

3. UREA. This acts as a mucolytic and helps to clear sticky mucus from the pharynx and larynx. It is harmless and the dose is variable. About a salt-spoonful to 50 ml. of a watery solution is about right and can be added to the above preparations. I often use all three mixed, by spray and syringe.

4. 1 per cent MENTHOL IN OLIVE OIL applied to the larynx by syringe may be comforting, especially in dry throats.

5. ARGOTONE (supplied as nose drops) is a mild vaso-constrictor and may possibly reduce slight cordal oedema.

6. PIGMENTUM MELBA. The value of this historic preparation (said to have been formulated by Milsom Rees for use on the famous singer's larynx) is still disputed. It is a 'fierce' treatment and unpleasant to the patient, but I do use it occasionally.

7. Gargles and lozenges may be somewhat soothing or moistening but they do not reach further than the anterior fauces. However, two pressurized throat sprays known as A.A.A. and CHLORASEPTIC may descend further, and have the advantage that they can be bought without prescription and the performer can use them for himself. They cause some pain for a few seconds, but are then soothing. Their alleged antiseptic value, even in the tonsillectomized, is doubtful.

8. XYLOCAINE VISCOUS. Although only to be used in moderation, this local anaesthetic preparation can be valuable in relieving pain from mouth ulcers, or by swallowing if there is upper oesophageal pain resulting from a small abrasion from a foreign body, such as a fish bone, which has passed on. (As with all analgesic or anaesthetic formulae it should not preferably be used within half-an-hour or so before

https://doi.org/10.1017/S0022215100095207 Published online by Cambridge University Press

performing or the voice may go out of control.)

9. PAYNOCIL. If there is no objection to aspirin, this compound has the virtue of quick action. It should be chewed up before swallowing, and can be taken without water, which is useful if the patient is travelling.

10. ORGANIDIN ELIXIR. 5 ml. q.d.s. for five to seven days. (Equivalent to two tablets, which are available in U.S.A. but no longer in U.K.—which is a nuisance as they are more convenient.) This iodide preparation is one of my favourite prescriptions when there is complaint of dryness of the throat or recurrent compulsion to clear the throat of sticky mucus. Very many of my patients always have some at hand. It can be bought without prescription. The usual warning about allergy to iodides, especially rashes, should be given. It should not be taken during pregnancy as neo-natal goitre is a possibility.

11. MYOTONINE CHLORIDE 10 mg. (tablets). This parasympathomimetic drug, taken as two tablets half-an-hour or so before performance, is often useful in stimulating lubrication in performers who suffer from the dreaded dry throat at these times.

12. BISOLVON (tablets). Two tablets t.d.s. for a week or two help to liquefy sputum and we believe it useful in mild bronchitis.

13. MUCODYNE (capsules). Although its efficacy remains doubtful, and a course is lengthy and expensive, it is possible that this substance may also reduce viscosity of mucus, whether from nose, larynx or chest. The dose is two tablets t.d.s. for one month, and if effective reduce to one t.d.s. for a further month.

14. STEAM INHALATIONS. These can be comforting, especially if the performer is exposed to dry, over-heated atmospheres. The contents of a KARVOL capsule to the inhalation is sometimes helpful. An efficient HUMIDIFIER may be invaluable but the best ones are expensive, a nuisance to transport, and in hard-water areas may need frequent de-scaling. (A small trough of water hung over a radiator does little good. During cold weather, in a gently centrally-heated flat the author's humidifier will use a large watering can of water in 24 hours.)

15. PROETZ SOLUTION. This physiological solution was devised many years ago by the above-named expert who did much excellent research on nasal and sinus mucosae. He particularly used it in his excellent displacement technique in some sinus conditions, but it can be employed as a harmless, cleansing spray anywhere in the upper respiratory tract.

16. ANANASE FORTE. Two tablets t.d.s. for five to 10 days reduce traumatic oedema, including that frequently suffered by the vocal cords.

17. CORTICO-STEROIDS. These potentially dangerous preparations are sometimes over-prescribed (particularly to singers in the U.S.A.). However, I have no doubt that they may be very valuable in damage to muscles. Reinke's space and the cordal epithelium. I give 80 mg. intra-muscularly (2 ml. of Depo-Medrone). Activity rises to a peak in about a week, and then gradually 'tails itself off' during the fourth week, but this is a general statement.

18. A.C.T.H. GEL. This corticotrophin is valuable if one requires a quicker, but shorter-lived, action than the above—active for about three days. I give 80 international units intramuscularly.

19. ANABOLIC STEROIDS. There is still much discussion on the indication and justification for using these hormones on athletes (whether singers, actors, race-horses or Olympic contenders!). I use them occasionally in cases of laryngeal myasthenia where urgency requires them. I never give them to young females as virilization and loss of high tones may result.

20. THE CONTRACEPTIVE PILL. I always advise gynaecological guidance here. Some singers seem in better voice when taking them and others worse.

21. CYKLOKAPRON. There is evidence that this compound reduces blood-loss during tonsillectomy and in prostatectomy. I have found it valuable in cases where a singer suffers from hyperaemic cords, and even cordal haemorrhage, if she has to sing just before or in the first few days of menstruation. I give three 0.5 g. tablets q.d.s.

https://doi.org/10.1017/S0022215100095207 Published online by Cambridge University Press

for three or four days.

22. TRASICOR. One 40 mg. tablet of this beta-blocker a half to one hour before performance may relieve the anxiety so common in performers at such times. Details will be discussed in the next chapter.

23. INDOCID. This and similar drugs may relieve aching of laryngeal joints. I give 100 mg. by suppository, but even by this route gastric, as well as rectal, irritation may occur, so it should be prescribed only if it seems essential.

24. PHYSEPTONE. A non-productive cough can be suppressed by this powerful drug. I give a very few halves of 5 mg. tablets, warning the patient that too-frequent use will make him feel faint and out of control.

25. DALMANE. One 30 mg. tablet at night usually ensures a good night's sleep without after-effects.

26. RITALIN. The 'pep pill' variety of medicaments are usually to be condemned. But just occasionally a 10 mg. tablet of the above, before an important performance, is justifiably taken by an exhausted actor—such as a First Night following tiring rehearsals, with less arduous days to follow.

27. NOSE and CHEST complaints must be considered, but available treatments will be familiar. Avoid antihistamines (except possibly PHENERGAN at night only) as, even if they are effective, they tend to make the patient dry and sleepy.

28. TRIPLOPEN. *Bacterial* throat infections usually respond most rapidly to an intramuscular injection of this triple—penicillin, and it is active in the body for three days. Oral preparations may be too slow-acting considering the patient's time-schedule. Alternatives will be familiar, but if muco-pus is produced by the bronchial tree, AMOXIL, SEPTRIN or VIBRAMYCIN can be considered.

https://doi.org/10.1017/S0022215100095207 Published online by Cambridge University Press

Pharmaceutical names

Some of these are clear in the above text so those mentioned in this section will be numbered to correspond with this for ease of reference.

1. BENADRYL — Diphenhydramine hydrochloride.
3. UREA — Carbamide
5. ARGOTONE — Ephedrine HCl. 0.9 per cent.
   Mild Silver Protein B.P.C. 68 1 per cent.
   Sodium Chloride 0.5 per cent to 100 per cent.
6. PIGMENTUM MELBA (Formula modified)

Liq. Ferri Perchlor.	6.3 per cent
Xylocaine HCl.	0.2 per cent
Menthol	0.4 per cent
Alcohol 90 per cent	37.7 per cent
Glycerine	37.5 per cent
Distilled water to	100 per cent

7. A.A.A. SPRAY — Per dose contains Benzocaine 1.5 mg.
   Cetalkonium Cl. 0.0413 mg.

   CHLORASEPTIC SPRAY — Contains phenol B.P. and sodium phenolate (total phenol 1.4 per cent).
8. XYLOCAINE VISCOUS — Contains anhydrous lignocaine HCl. 20 mg. per ml. in a viscous base.
9. PAYNOCIL — Contains Aspirin 600 mg. and Glycine 300 mg. B.P. per tablet.
10. ORGANIDIN ELIXIR — Contains iodinated glycerol 60 mg. with 1.25 ml. 95 per cent alcohol per 5 ml.
11. MYOTONINE — Contains 10 mg. bethanechol chloride per tablet. (25 mg. tablets are also available.)
12. BISOLVON — Contains 8 mg. bromhexine HCl. per tablet.
13. MUCODYNE — Contains 375 mg. carbocisteine per capsule.
14. KARVOL — Capsules each contain:

Menthol	35.9 mg.
Pine oil	85.5 mg.
Chlorbutol	30.0 mg.
Terpincol	67.4 mg.
Cinnamon oil	12.3 mg.
Thymol	3.2 mg.

15. PROETZ SOLUTION — Contains:

Sodium chloride	0.9 g.
Alcohol 90 per cent	3 ml.
Glycerine	6 ml.
Distilled water	90 ml.

16. ANANASE FORTE — Contains 100,000 Rorer units of Bromclains per tablet.
21. CYKLOKAPRON — Each 0.5 g. tablet contains 0.5 g. of tranexamic acid.

https://doi.org/10.1017/S0022215100095207 Published online by Cambridge University Press

22. TRASICOR — Tablets of 40 mg. oxprenolol HCl.
23. INDOCID — 100 mg. Indomethacin per tablet.
24. PHYSEPTONE — Methadone in 5 mg. tablets.
25. DALMANE — 15 and 30 mg. tablets of flurazepam as the mono-HCl.
26. RITALIN — Contains 10 mg. of methylphenidate HCl. per tablet.
27. PHENERGAN — Is supplied as 10 and 25 mg. tablets of promethazine HCl.
28. TRIPLOPEN — Each vial of powder contains:

Benethamine penicillin	500,000 i.u.
Procaine penicillin	250,000 i.u.
Benzylpenicillin sodium	500,000 i.u.

1.3 ml. water is added for deep intramuscular injection.

AMOXIL — Amoxycillin. There are several preparations including 250 and 500 mg. tablets.

VIBRAMYCIN — Doxycycline HCl. at 100 mg. per capsule.

SEPTRIN — Trimethoprim 80 mg. with sulphamethoxazole 400 mg. per tablet. The forte tablet has double these strengths.

https://doi.org/10.1017/S0022215100095207 Published online by Cambridge University Press