As there was clearly a large amount of foreign material still in the bronchial tree, an emergency bronchoscopy was performed at 3 a.m. on December 4. The airway was cleared of a large quantity of milky, frothy mucous fluid. Although the trachea was markedly deviated to the left there was no obstruction to the passage of the bronchoscope. Following this, her condition improved slightly, although she never regained full consciousness. An endotracheal tube was left *in situ*. Her mouth filled up repeatedly with purulent fluid, which was aspirated at regular intervals. Many attempts to abandon the use of the endotracheal tube were followed after a minute or so by coughing, cyanosis, and a deepening of the level of coma. Relief was obtained immediately by reinsertion of the tube and aspiration of fluid from the trachea. A stomach tube could not be passed, and after repeated attempts it was concluded that virtually complete oesophageal obstruction was present. Throughout the pre-operative period glucose fluids were given intravenously.

Later on December 4 a lumbar puncture was performed; the cerebrospinal fluid was under normal pressure and had normal constituents. Blood biochemistry and counts were also within normal limits.

On December 6 she was still comatose, with no localizing signs in the central nervous system. It was therefore decided to carry out an oesophagoscopy to try to determine the nature of the obstruction. This showed that the upper end of the oesophagus was displaced backwards and to the left. An extrinsic obstruction was encountered just below the level of the cricoid cartilage. Immediate exploration of the neck was carried out.

Operation

The thyroid was exposed by one of us (A. G. E.) through the routine incision. The trachea had been pushed to the left by a large thyroid adenoma occupying most of the right lobe of the gland and extending retrosternally. This was delivered with moderate ease and removed, a small posterior fragment of normal gland being left *in situ*. The trachea, however, remained to the left side, and exploration of the left lobe of the gland showed it to be elongated and flattened, with two nodules about 1½ in. (3.8 cm.) in diameter occupying the lower pole. The inferior nodule had become retro-oesophageal, and appeared to be compressing the oesophagus against the trachea and holding both structures over to the left. After delivery of this lobe the trachea returned immediately to the midline. The lower pole was then removed and the remainder of the lobe sutured to the highest point of the trachea. This was followed by routine closure of the wound with drainage.

Post-operative Course

The patient recovered consciousness while still in the theatre and a few hours later had no difficulty in swallowing. Apart from a mild tracheitis and a small wound haematoma, her convalescence was completely uneventful. She had no further attacks of epilepsy or breathlessness. One month after discharge she had a grand-mal attack which was not associated with breathlessness, stridor, or cyanosis.

Examination of the excised thyroid tissue showed it to consist of degenerating adenomata in a nodular colloid goitre. There was no evidence of malignancy.

Comment

Dysphagia is a decidedly rare feature of simple goitre, occurring in about 0.2% of such cases, although it is more common in association with intrathoracic goitres (Keynes, 1950; Rundle, 1951). Hoffman (1955) has recently found this symptom in 8 out of 32 cases of intrathoracic goitre. Complete obstruction, demonstrated in our case by the collections of fluid in the nasopharynx, with the failure to pass a stomach tube or oesophagoscope, is very uncommon.

Our patient came into hospital unconscious, and remained so until after the thyroidectomy. The coma deepened when anoxia was produced by removal of the endotracheal tube. Apart from this, the cause of the unconsciousness was not clearly understood. There were many possible factors:

cerebral anoxia, cerebral oedema, and epilepsy may all have played some part. It is possible that there was some reduction in the cerebral blood flow through the carotid and vertebral arteries, but no obvious abnormality in these vessels was detected at operation. There was obstruction to the return of blood through the external jugular vein, and it is possible that there was a similar obstruction of the deep veins. The most severe degree of anoxia followed inhalation of nasopharyngeal secretions accumulating in the short segment of the oesophagus above the obstruction and spilling over into the bronchial tree.

We wish to express our thanks to Dr. Una Ledingham and Miss G. M. Barry for permission to report this case.

ADDENDUM.—In the last year the patient has developed a tremor of the red nuclear type affecting the head and upper limbs.

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A NEW EVACUANT SUPPOSITORY

RESULTS IN TREATMENT OF RECTAL DYSCHESIA OF CHRONIC SICK AND GERIATRIC PATIENTS

BY

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Recently a new laxative agent has been described (4,4'-diacetoxy-diphenyl)-(pyridyl-2)-methane, "dulcolax," and this has been followed by a number of enthusiastic reports in the German literature. Förtsch (1953) has reported it to be orally effective in gynaecological patients, and when administered as a suppository it has been shown to be a very useful measure in evacuating the colon prior to radiography (Kolshorn, 1954). Although the precise mode of action of the drug is not clear, this is stated to be by means of a surface-contact effect promoting colonic peristalsis. It is reported to be non-toxic by the oral route (Scott, 1956) and not absorbed systemically.

Patients who are confined to bed in hospital for long periods often develop rectal dyschesia. This is particularly seen in geriatric cases and the special younger group of chronic sick. In view of the claims that have been made for this drug it was decided to record its effects on a group of these patients when administered rectally as a suppository containing 10 mg. of the active constituent.

The trial was carried out in two parts. Initially the suppositories were administered in a routine fashion in order to assess their effectiveness, and later they were used in a second series of patients who were considered to require an enema.

Method

The patients were from wards of the Geriatric Unit and a long-stay annexe. The nursing staff kept a careful record of the results. For the first part of the trial patients were chosen who were having regular enemata or who had had no bowel action for three or more days. Most of the patients were receiving a variety of aperients, and these were stopped for the period of the trial. The nursing staff were given instructions to insert one suppository as high as possible into the rectum with the gloved finger, and at the same time a note was made of the rectal contents. Later the patient was placed, whenever possible, on a commode or, more rarely, on a bedpan. The time from insertion of the suppository to bowel action was recorded. The result was assessed as one of four grades. Grade 1, Excellent: the result being as good as a successful enema or normal bowel

action. Grade 2, Moderate: here a result occurred which was satisfactory but not as large as those classed as excellent. Grade 3, Poor: the stools consisting of a small quantity of constipated faecal masses. Grade 4 patients showed no response. The consistency of the stools was recorded as (a) hard, (b) soft yet formed, or (c) loose or unformed. Signs of discomfort, abdominal pain or colic, bleeding or signs of collapse were carefully watched for. Patients who had no result were re-examined rectally to see if faecal matter was present.

The second part of the trial consisted of the administration of the suppositories to patients who required an enema. It was arranged that on four wards of the Geriatric Unit all enemata were to be stopped for a period of one month and the suppositories used in their place. After noting the presence of the contents of the rectum a suppository was inserted and the events thereafter were recorded as in the first trial. If no motion occurred after two hours another suppository was inserted and the results were noted. If this second suppository was not followed by an evacuation a simple senna or agar emulsion aperient was administered that evening with the use of a further suppository the next morning. A record of the results was kept throughout these stages.

Results

In the first trial 289 suppositories were administered to 84 patients. The patients' ages varied from 32 to 92 years; more than three-quarters were over the age of 70, and a little under half were over the age of 80. The majority of the patients were frail and aged. 26 patients required the use of regular enemata, or digital rectal evacuation to be performed by the nursing staff, and most of these patients had been bedfast in hospital for many years.

Table I gives the results in the first series of patients. In 216 (75%) instances the administration of one suppository produced a result which was thought to be as good as a successful enema.

TABLE I.—Results of First Trial

Ward:	A	B	C	D	E	Totals
No. of patients	19	15	17	13	20	84
No. of suppositories given ..	128	61	47	23	30	289
No. having regular enemata ..	11	3	—	2	10	26
Results:						
I, Excellent	117	52	17	8	22	216 (75%)
II, Moderate	8	9	13	6	3	39 (13%)
III, Little	3	—	12	6	3	24 (9%)
IV, None	—	—	5	3	2	10 (3%)
No. of bowel actions:						
One	122	60	28	19	27	256 (88%)
Two	6	1	10	1	19	37
Three or more	—	—	4	—	—	4

In 34 (12%) instances the result was classed as being "little" or "none." In 256 (88%) instances the result was a single action of the bowel.

In only 9 out of 263 instances the stools were loose and unformed; in the great majority of cases they were soft and formed. It was concluded that there was little tendency for diarrhoea to occur.

In 10 instances no evacuation followed the use of one suppository in this first series. In one of these the rectum was excessively loaded with faeces; the other nine were considered to have had no result because the rectum and sigmoid colon were thought to be empty.

TABLE II.—Results of Second Trial

Ward:	E	F	G	H	Totals
No. of patients	19	12	9	8	48
Occasions enema required ..	112	17	12	14	155
No. of good results, one suppository	91	15	12	13	131 (84%)
No. of good results, second suppository	10	2	—	—	12 (8%)
No. of good results, aperient and suppository	11	—	—	1	12 (8%)
Occasions enema given	—	—	—	—	—

The results of the second series are given in Table II. In the four wards during the four-weeks period there were 155 occasions when an enema would have been given. In 131 (84%) instances an excellent result occurred following the use of one suppository only. In a further 12 instances a satisfactory result was obtained after using a second suppository. The remaining 12 occasions produced a satisfactory result after the use of a nocturnal aperient and a suppository next morning. In none of these cases was an enema necessary, and none was given on these wards during the period of these observations.

The incidence of side reactions was negligible. During the administration of 480 suppositories slight abdominal pain was noticed in three patients, a feeling of nausea was present in one, and vomiting occurred during the night in a further patient, although this latter symptom may have been unrelated.

The times taken for the suppository to produce evacuation of the bowel in 100 consecutive administrations are given in Table III. The majority of actions occurred 30–60 minutes

TABLE III.—Time from Suppository to Bowel Action in 100 Patients

	½ Hour	1 Hour	1½ Hours	2 Hours	2½+ Hours
No. of patients	5	56	15	15	9

after insertion of the suppository. It should be noted that few (5%) occurred before 30 minutes and many (39%) after 60 minutes had elapsed.

Discussion

Experience with this new laxative agent in suppository form has shown it to be effective in the treatment of rectal dyschezia. It can be used in the place of an enema. There are distinct advantages in its use in the aged. Many geriatric patients in the trial had been receiving regular or occasional enemata for years. These were sometimes followed by circulatory collapse requiring stimulants. They are now able to use the commode with no ill effects.

Certain other patients are worthy of mention. In one ward there were three bedfast patients aged 47–54 years suffering from post-encephalitic Parkinsonism. They had all been cared for in hospital for periods exceeding 20 years. As is common in this condition, their appetites were voracious. Twice weekly, for at least six years, they received enemata and often required digital evacuation of a large faecal bolus. They are now managed satisfactorily by the suppository method and have not required an enema for the last four months. It has been found to be most effective when combined with an aperient given during the preceding evening.

The suppositories have been the treatment of choice in the case of two patients with extensive abdominal carcinomatosis in whom the enema or aperient therapy was badly tolerated and produced severe discomfort. The ward sister noted that a better result was obtained if the suppository was retained as long as possible and the foot of the bed was raised after insertion.

Several incontinent and demented senile patients with very dirty habits also benefited from the use of the suppositories. Aperients given to these patients often caused aggravation of the incontinence, and often with looseness of the stools throughout the following day. These patients, on the whole, have had their habits, as they are related to rectal distension, improved by the suppository routine. Several have been re-trained to use the commode after long periods of incontinence.

The simplified management of these patients has also been felt by the nursing staff. On one ward two days weekly were given over to the administration of 7–10 enemata; none of these are now given. There has been a saving of time and unpleasantness both for patients and for nursing staff. The need for changing and sluicing of bed-linen has been greatly reduced.

There were some failures to respond to the suppositories. Some of these were explained by the fact that the lower bowel was empty. It was ineffective in a few patients with a large rectal bolus. Earlier in the trial recourse to the commode or bedpan was at times prematurely made. Some patients express a desire to defaecate soon after the insertion of the suppository, and it may be passed before it has undergone solution. This should be disregarded, and the patient does not require placing on the commode until, at the minimum, 20 minutes have elapsed.

In the eight wards in which the drug has been tried enemata have no longer been necessary. It appears that the suppositories possess advantages for use in domiciliary nursing practice. It is concluded that this drug is a valuable, convenient, and effective method of treating the rectal dyschezia of aged and chronic sick patients.

Summary

A clinical trial of a suppository containing a new laxative agent (4,4'-diacetoxy-diphenyl)-(pyridyl-2)-methane ("dulcolax") is reported.

It appears to be effective in the treatment of rectal dyschezia in a group of chronic sick and aged patients.

It has been shown to be capable of replacing the enema in 84% of instances by the use of one suppository only.

Benefits from the point of view of the patient and management by the nursing staff are stressed.

Side effects so far observed are negligible.

I wish to thank Dr. H. Droller for permission to study patients under his care, and the nursing staff of the geriatric wards at St. James's and St. Mary's Hospitals, Leeds.

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Kolshorn, R. (1954). *Münch. med. Wschr.*, 96, 949.
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Applied Medical Bibliography for Students (Charles C. Thomas, 32s. 6d.) is intended to serve as "a guide to the students who must acquire a knowledge of the literature of their profession." Its author, W. D. Postell, is a professor of medical bibliography at Louisiana State University School of Medicine, and he contends that, "for the students to be able to use the library and its facilities to advantage, formal instruction in applied bibliography is an essential part of their education." Apparently in pursuance of this idea he includes at the end of the book a list of 45 questions on its subject-matter, arranged chapter by chapter. A short history of medical journalism is followed by an account of the different types of medical journal published to-day—general, review, abstracting, and so on—and the author describes the use of encyclopaedias, indexes, and works of reference. He also includes short sections on literary style and composition. The value of the book is much diminished by the author's deliberate exclusion of any reference to journals not written in English.

A number of changes have been made in the 23rd edition of *Dorland's Illustrated Medical Dictionary* (W. B. Saunders Co., Ltd., London, pp. 1,598+xvii, 87s. 6d.). Formerly known as the *American Illustrated Medical Dictionary*, it has been renamed to commemorate W. A. N. Dorland, who edited the twenty-two previous editions and by whose name the dictionary is already familiarly known. The rapid expansion of the medical vocabulary during recent years is reflected in the dictionary, which has increased its page size to accommodate many new terms. Besides these, thousands of definitions have been scrutinized and many have been rewritten to conform with changing concepts or expanded knowledge. Detailed descriptions of specific techniques (e.g., in staining and many other procedures) have been dropped, and the dosages of specific compounds have been replaced by a table of modern drugs and dosage currently accepted by the American Medical Association. The new type-face used in this edition is a great improvement on the old. The postage-stamp-size portraits familiar in previous editions have been omitted, and the illustrations, though fewer in number, have in many cases been redrawn in keeping with the modern setting and outlook of the dictionary.

Reviews

PIONEERS OF THE PUBLIC HEALTH SERVICE

Medical Officers of Health, 1848 to 1855: An Essay in Local History. By C. Fraser Brockington, M.A., M.D., M.Sc., D.P.H. (Pp. 51. 10s.) London: For *The Medical Officer* by Hodgetts Ltd. 1957.

The Public Health Act, 1848, had a stormy passage through Parliament. It established a General Board of Health of three members and empowered it to authorize the setting up of local boards of health in districts where the death rate was high or where 10% of the inhabitants petitioned for one. A local board could employ an "officer of health" who had to be "a member of the medical profession." The General Board was charged with the duty of approving the appointment and removal of these officers. Just prior to the passing of this Act two local authorities, Liverpool and London, had appointed medical officers of health under powers obtained in privately promoted local Acts.

The General Board of Health came to an untimely end in 1854, when a proposal to continue it was defeated in the House of Commons by 74 votes to 65. This happened despite the fact that an epidemic of cholera was raging at the time. But the activities of the Board had hurt too many private interests for it to be popular with either Parliament or press. By 1854 local boards of health had been established in 182 districts. How many had appointed officers of health is not known, but this book records the names and some particulars of 39. Their duties are set out in a circular dated February 12, 1851, which is reproduced in full. The first appointment to be approved was that of Dr. Buck, of Leicester. Some were appointed for short periods only and failed to obtain reappointment. Dudley, for example, recorded that the continuance in office of their medical officer of health would be "a totally useless and uncalled for expense." Other areas were more enlightened. In Darlington Dr. Stephen Edward Piper was appointed in 1851 and remained in office until 1882. He was forthright in his annual reports, the first of which is included in the book.

Little is known now about these "officers of health," and students of the history of public health will be greatly indebted to Professor Fraser Brockington for having ferreted out so much information hitherto hidden away in long-forgotten official files, medical journals, and directories and local newspapers.

ALLEN DALEY.

CLINICAL USE OF RADIOISOTOPES

Clinical Use of Radioisotopes. By William H. Beierwaltes, M.D., Philip C. Johnson, M.D., and Arthur J. Solari, B.S., M.S.(Physics). (Pp. 456+xiii; illustrated. 80s. 6d.) Philadelphia and London: W. B. Saunders Company. 1957.

Good textbooks on the clinical applications of radioactive isotopes have hitherto been surprisingly rare, perhaps because too few people were prepared to write authoritatively on the whole of a very diverse and rapidly widening group of subjects. The present work joins a select group of two or three comprehensive and careful books in this field, in which radioisotope applications are as well described as they were in biochemistry by Sacks, in therapy by Hahn, and in biology by Hevesy. The text is developed from lectures on this subject given regularly to medical students and practitioners at the University Hospital, Ann Arbor. Appropriately, therefore, it deals most fully with established and frequent uses of radioisotopes, and radioiodine receives nearly twice as much of the book as all other isotopes put together. The presentation here is, in general, excellent, giving a practical and informative account of clinical management as well as the theoretical basis of the radioiodine procedures described. Occasionally the amount of detail on alternatives and procedures may obscure the general plan of treatment