

**THE NOMENCLATURE OF MINOR VIRUS
ILLNESS IN GENERAL PRACTICE**

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The general practitioner is frequently seeing cases of relatively trivial illness to which it is difficult to put a name. The clinical labels of "chill", "flu", "gastric 'flu" and many others are commonly used. In general these terms possess the virtue of having a loose yet recognizable meaning, when exchanged between patients and doctors and even between the clinicians themselves. The same is true of the labels applied to the commonly seen rash diseases of the rubella type; such names are "german measles", "teething rash", "feeding rash", and various others.

The growth of virology over recent years and the identification of certain types of virus as the causative agents of various syndromes occurring in the above groups¹ must give rise to a sense of dissatisfaction and incompleteness of diagnosis regarding these labels.

Some attempt should perhaps be made to tie a specific virus agent to a specific syndrome if possible, and as a first step it was felt that an effort to recognize clinical entities within this group (excluding the exanthemata) was desirable.

The basic picture of a short duration pyrexia with generalized malaise and muscle pains, with or without running nose and eyes and a pharyngitis, sometimes associated with gastro-intestinal symptoms, is so commonly seen that we felt we must attempt to define more clearly our own clinical nomenclature. We therefore tried to distinguish clearly identifiable syndromes, and to record their characteristics, as they occurred during the winter months, in our city practice. We also tried to evolve a simple system of classification and nomenclature for future use.

It is not necessarily true to say that all people mean exactly the same thing when using even the simplest clinical label, for example,

“coryza”. It is also certain that the term “influenza” is frequently applied in general practice to short duration pyrexias of unknown origin which may well be due to a cause quite different from the influenza virus. Therefore, in describing the clinical patterns seen during this period, we have included our own descriptions of both these diseases for comparison.

In fact all the syndromes with which we were concerned contained some respiratory element and were classified, in the first instance, in the upper respiratory illness group, even though some exhibited marked gastro-intestinal upset as part of their total effect.

Method

In this practice, notes of all cases are made on the patients' standard N.H.S. Record Card and punch cards are prepared routinely for all new diagnoses, seen either in surgery or at home. The record cards for “respiratory system” cases were thus easily found for scrutiny at each month end by reference to the appropriate punch hole.

As soon as a syndrome became apparent to one of the partners, the practice was alerted and we looked specifically for that or a similar syndrome in future patients. At that time a brief clinical description was set down against a date and index number. During the first few days of recognition the description was amplified or modified until a fairly clear picture emerged which could be written down and recognized as a definite clinical entity. Special emphasis was placed on points of difference from the last syndrome seen and re-emergence of any earlier syndrome was looked for.

Material

A total of 906 upper respiratory new diagnoses was made in the six months from October, 1961 to March, 1962. This was an average of 151 per month. This period included a minor epidemic of clinical influenza, giving rise to a wide variation in the monthly totals. The total number of new diagnoses during this period was 3,105, thus indicating that 30 per cent of our daily work (dealing with new cases only) was concerned with respiratory infection. The monthly totals are shown in table I.

Results

All respiratory virus illness

The respiratory illness totals can be broken down clinically, initially, into three groups, namely (1) coryza, (2) influenza, and

(3) other virus respiratory illnesses.

The incidence of these groups is shown in figure 1.

TABLE I
MONTHLY TOTALS OF NEW DIAGNOSES

1961/62	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Total
New diagnoses ..	530	420	510	663	514	468	3,105
All U.R.I. ..	98	126	154	225	136	167	906
U.R.I. per cent of new diagnoses	17%	30%	30%	34%	27%	36%	30%

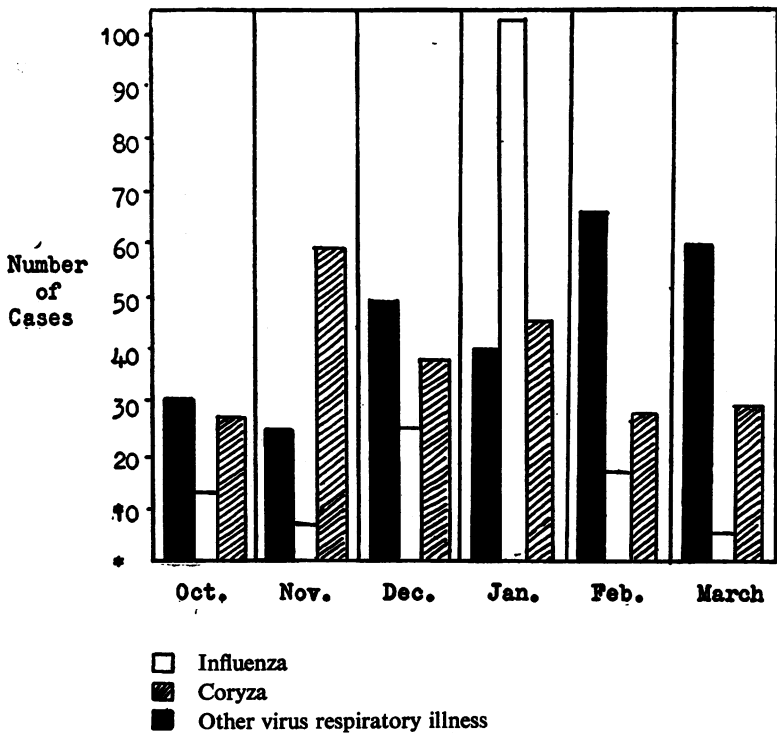


Figure 1

The incidence of other respiratory virus illness compared with influenza and coryza

Emergence of syndromes

The majority of cases which were neither common cold nor influenza were of an influenza-like type, but with a mixture of gastro-intestinal and myalgic symptoms, or were (in children mostly) patients in whom a short sharp spike of temperature was, with malaise or fretfulness, the only sign. Although these latter cases tended to occur more often in one week or month than another, consecutive cases were so non-specific that it was impossible for the most part to pick out clearly recognizable syndromes by our simple descriptive method. These are classified as "non-specific upper respiratory infections".

The above type of case also overlapped with another group in which the patients' complaint of a "cold" or vague catarrhal and "shivery" illness was so non-specific that perhaps any diagnosis should have related more to the patients' willingness or unwillingness to work, rather than to a virus infection. In spite of this, certain syndromes did appear, which, although forming only a small proportion of the total virus illness, presented with a specific pattern of signs and symptoms and which were sufficiently distinctive to be recognizable apart from the general "background noise". There were, in fact, 67 such cases out of some 280 classified as virus illness which was neither coryza nor influenza, i.e., 24 per cent.

The syndromes

We were able to distinguish six syndromes (excluding "coryza" and "influenza") which were sufficiently constant in their presentation to warrant separate description. Four of these showed marked gastro-intestinal upsets which were too definite to have been part of a general constitutional disturbance.

The dates of occurrence are shown in figure 2 where they are compared with the monthly incidence of coryza and influenza.

A brief description of the syndromes (including that of coryza and influenza) is given below, and they are compared in tabular form in table II.

Clinical description

I *Coryza* Oct. 1961 to
March, 1962.

Common cold

All age groups. Upper naso-pharyngeal burning sensation followed by moderate to profuse watery nasal discharge with mild conjunctivitis and running eyes. Mildly febrile first day then malaise +, but few muscle pains. Nasal discharge thickens to purulent in 2—3 days and may persist. No attempt at virus isolations.

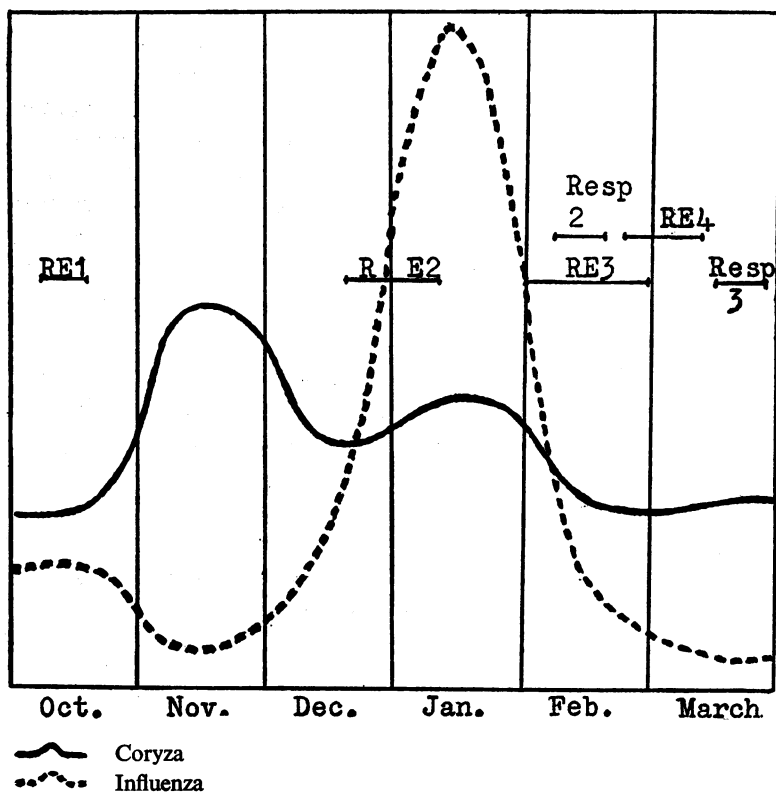


Figure 2

The dates of occurrence of the syndrome of respiratory virus illness compared with coryza and influenza

II	<i>R.E.I.</i>	Oct. 1961	Mostly adults. Severe headache and upper sore throat for 24—36 hours followed by relatively sudden onset of back and leg ache with temperature (100°F). Duration 48 hours, followed by nausea, abdominal discomfort and watery diarrhoea for a further 48 hours. No virus isolations. 10 cases 17/10/61 to 21/10/61.
	<i>Pharyngo/enteritis</i>		
III	<i>Resp. 1.</i>	Dec. 1961 to Jan. 1962.	Severe upper pharyngeal burning sensation, headache, malaise, and sweating. Febrile 2—3 days. No abdominal discomfort nor vomiting. All age groups. Rise in titre to influenza B in one case. Several families (120 cases).
	<i>Influenza</i>		

- IV *R. E. 2.* Dec. 1961 to
Jan. 1962.
Coryza|enteritis
- Concurrent with *Resp. 1.*
Mostly adults but children in some families. Severe upper pharyngeal burning sensation 48 hours followed by typical coryza 2—3 days, followed by nausea and vomiting (mild) but severe diarrhoea—watery, almost pure blood and mucous in some cases for 24—48 hours. Tendency for thick nasal catarrh to persist. Mostly afebrile but malaise + + +. Headache and myalgic pains common. Family tendency. Six families at least.
A Coxsackie A and an adenovirus, were isolated, one from each of two separate families.
- V *Resp. 2.* Feb. 1962.
Pharyngo|adentiis
- 5 year old group mostly.
Pharyngitis + +, enlarged tonsillar glands. Tonsils red and enlarged, no exudate. Pyrexia up to 102°F. Same families, babies with wet chests. Adults sore throats only. Six families at least (mostly school contacts or close neighbour in each family.)
No isolations.
- VI *R. E. 3.* Feb. 1962.
Myalgic|pharyngo|enteritis
- Adults mostly. Recurrent severe sore throat and malaise on and off 3—4 weeks with marked myalgia. Mild coryza at onset for 2—3 days followed by catarrhal cough for same duration. Usually irritable and depressed.
Second to third week commonly an episode (2—3 days) of colicky abdominal pain and diarrhoea. Vomiting uncommon.
Five cases. No isolations.
- VII *R. E. 4.* March, 1962.
Coryza|gastritis
- Adults. Coryza 2—3 days, with sudden dramatic and repeated vomiting, sometimes with vertigo. Vomiting persists 6—12 hours only.
Temperature elevated (up to 102°F). Malaise persists 2—3 days with general backache but no specific myalgia. Blisters seen on tonsils in one case. Mild jaundice occurred one week after episode in two cases. Twenty cases. No isolations.
- VIII *Resp. 3.* March, 1962.
Pleurodynia
- Adults, Sudden onset pleuritic type pain of moderate severity. Malaise +. No vomiting.
One case mild diarrhoea. Duration, few days to two weeks.
Note. In this series four cases only.
All chest x rays N.A.D.
In our experience the only thing that characterizes pleurodynia is pleural pain, which may be dramatically sudden in onset and of short duration.

TABLE II
 "VIRUS SYNDROMES" EXCLUDING CLINICAL INFLUENZA AND COMMON COLD

	R. E. 1	R. E. 2	Resp. 2	R. E. 3	R. E. 4	Resp. 3
Age groups	Adults	All	5 and under	Adults	Adults	Adults
Onset	Rapid	Rapid	Rapid	Rapid	Sudden	Sudden
Duration	6 days	7-8 days	2-3 days	2-3 weeks	3-4 days	Variable
Severity of illness	Moderate	Moderate	Moderate	Moderate to severe	Severe but short	Variable
Sequelae	None	None	Otitis media	Depression	None	None
<i>Symptoms</i>						
Headache	+++	++	Fretfulness +++	Irritability ++	+ and vertigo in some cases ++	±
Coryza	-	++	-	+	++	-
Catarrh	±	+++	-	+++	-	-
Sore Throat	+++	+++	+++	+++ (Recurrent)	±	-
Malaise	++	++	++	+	++	+ to +++
Myalgia	++	++	-	+++	+	++ Pleuritic distribution
Cough	-	-	-	+	-	-
Nausea	+++	++	±	±	++	-
Vomiting	±	++	±	-	+++	-
Abdominal pain	++	++	-	+++ (Recurrent)	++	-
Diarrhoea	++	++	-	+++	Constipation ++	±

TABLE II (continued)

	R. E. 1	R. E. 2	Resp. 2	R. E. 3	R. E. 4	Resp. 3
<i>Signs</i>						
Pharyngitis	++	+	++	++	+	±
Post-nasal drip	-	++	±	+	±	-
Tonsillitis	-	-	+++ (No exudate)	+++	-	-
Adenitis	-	-	+++	-	-	-
Neck stiffness	-	-	±	-	-	-
Chest signs	+	+	±	-	-	-
Abdominal tenderness	±	±	-	-	±	Occasional, hypochoondrium
Temperature	±	±	++	±	±	±
Virus isolations	None	Coxsackie Adeno	None	None	None	None
Month	Oct. 1961	Dec. 1961/ Jan. 1962	Feb. 1962	Feb. 1962	Mar. 1962	Mar. 1962
R. E. 1 R. E. 2 Resp. 2	Pharyngo-enteritis Coryza-enteritis Pharyngo-adenitis					
			R. E. 3 R. E. 4 Resp. 3	Myalgic-pharyngo-enteritis Coryza-gastritis Pleurodynia		

Classification system

The syndromes are divisible in the first instance into two groups, those of the "coryza" group, and those of the "influenza-like" group. Each group is further subdivided by the presence or absence of gastro-intestinal disturbance. These alimentary reactions are clearly either upper or lower in their manifestations and form an additional method of grouping. Finally, certain extra features such as marked myalgia or lymph node enlargement were specific enough to enable us, with the other features, to suggest the classification scheme set out in figure 3.

The names chosen for the syndromes are self explanatory, and even if they are oversimplified at this stage, form at least a basis for systematic future study. To avoid incorrect aetiological diagnosis we have avoided the term "influenza" in the nomenclature of the syndromes and for "influenza-like" illness have substituted "febrile pharyngitis."

Discussion

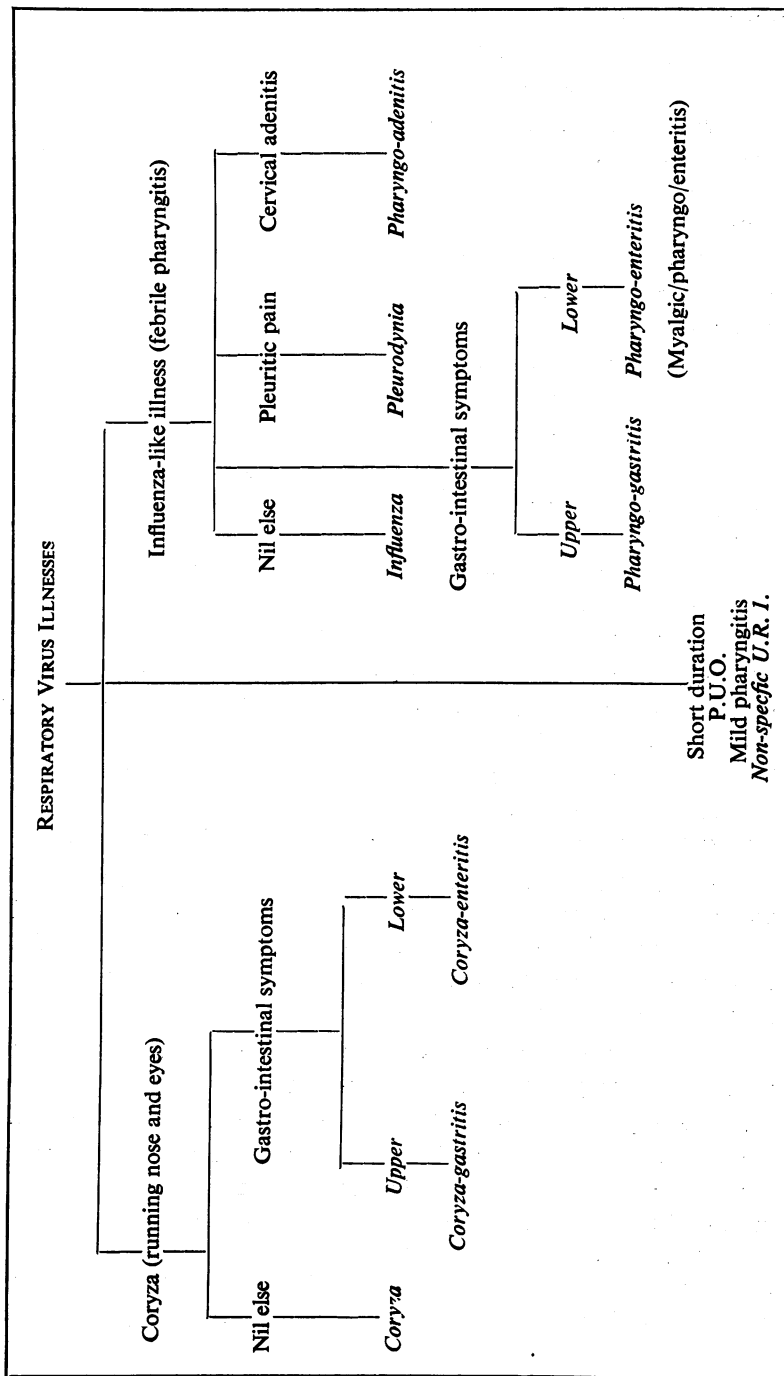
Enteroviruses of both the ECHO and Coxsackie groups are known to cause a variety of illnesses, from non-specific, influenza-like syndromes to rash diseases, and from epidemic myalgia to aseptic meningitis.

Similarly, respiratory viruses are also known to cause a wide range of clinical manifestations. The adenovirus group for example, whilst mainly, causing pharyngo-conjunctival infections and catarrhal conditions may also be associated with diarrhoea.

Considerable overlap of signs and symptoms has been noted in different virus infections. Part of the difficulty in separating clinical entities stems, we feel, from the fact that any observed illness pattern results, not only from the direct effect of the invading agent, which we believe in the majority of cases to give rise to the short duration P.U.O. pattern only, but also from the individual patient's response to the infection. There is a tendency for a person to react in a similar way to a variety of stresses. One person may soon become nauseated and vomit or develop diarrhoea, whilst another—usually from a different family—may never vomit. One person may suffer from severe headache during an illness, whereas another patient may hardly complain of this symptom.

Gastro-intestinal symptoms are, we think, peculiarly a function of the patient's reaction rather than the disease agent. There are, however, cases where they assume specific characteristics. For

FIGURE 3



example, severe and continuous vomiting, or diarrhoea consisting of almost pure blood and mucous are not part of a general patient-reaction but must be primary effects of the virus.

Attempts to associate enterovirus agents with diarrhoeal diseases have met with relatively little success, however, both ECHO viruses and members of the Coxsackie group have been recovered in some cases.²

Of 441 minor illnesses seen in a boys' camp in the U.S.A., 72 per cent were purely respiratory, 12 per cent were gastro-intestinal, and 15 per cent were classified as respiratory-gastro-intestinal.³

It is known that at least three types of ECHO virus produce respiratory symptoms, ECHO 28 behaving biologically like the virus recovered from adults with typical common colds.⁴

It is obvious then that both respiratory and gastro-intestinal symptoms may co-exist in some patients as a result of either enteric or respiratory virus infection, and that there is considerable overlap in the clinical picture caused by these groups of viruses. The clinical picture is confused and further confusion results from the individual patient's preferred mode of reaction to infection.

Broadly speaking the common cold viruses cause common colds, and the influenza viruses cause influenza. More particularly a virus has been associated specifically with classical cases of croup.⁵ In order to try ultimately to tie further virus agents to specific clinical syndromes—if this is possible—a first step must be to simplify and fix criteria for clinical differentiation of the syndromes.

In attempting to classify the diagnosis of these syndromes in our own practice, we have been able to devise a simple descriptive clinical classification which, we feel, if widely used in general practice would, at least, ensure that the same name was used by different people for the same syndrome.

Virus studies used in conjunction with such a system may help to clarify the virus-disease relationship pattern.

Our experience suggests that a very detailed investigation—perhaps beyond the scope of available time in general practice—would probably be needed to differentiate the members of the larger group of these illnesses, that is the “non-specific U.R.I. group”. However, a number of syndromes containing elements of both upper respiratory and gastro-intestinal disturbance exist which could relatively easily be split off and used as a starting point for

combined clinical and laboratory investigations, using existing practice facilities and records. It must be remembered that apart from virus isolations made in specific epidemics, the overall pattern of respiratory-enteric diseases and their associated virus agents in the community is not known, and that whilst viruses may be subject to genetic variation resulting in virulence change at any time, these minor illnesses may, at some time in the future, assume a much greater illness potential.

Summary

A more precise clinical definition of the minor upper respiratory infections, of virus origin, seen in winter in general practice, is attempted.

Specific respiratory—enteric syndromes are described, and a general system of classification and nomenclature is proposed.

A line of further combined clinical and virological study is suggested.

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“In comparison to the physician in medical specialty who is concerned with the treatment of a particular disease, or group of diseases, the physician in general practice specializes in the treatment of patients.”—Dr W. B. Ayre, M.D., of Montreal, speaking to final-year medical students.