a reproducible way if the diagnostic
criteria listed are strictly adhered to. While the
WHO classification of lung tumours,
like any other, is concerned with names, it
is important to remember that the name
given to a tumour is of less importance than its safe recognition and the under-
standing of the biological implications of
that name.

'Epidermoid carcinomas' are defined as
tumours with keratinization or inter-
cellular bridges. This is a precise, but
narrow delimitation, and some authorities
would like to see tumours with a more or
less 'transitional cell epithelium' included.
'Spindle-cell carcinomas' and 'carcino-
sarcomas' pose similar problems.

The term 'small cell anaplastic carci-
номa' is used to include a number of
subtypes (fusiform cell type, polygonal
cell type, lymphocyte-like type or oat-cell
type, and others) whereas some pathol-
ogists are inclined to regard the first two of
these as undifferentiated epidermoid
carcinomas.

The group of 'large cell carcinomas',
defined as 'tumours composed of large
cells without evidence of epidermization or
formation of gland-like structures', em-
braces a number of different entities, many
of which have been referred to as 'carci-
noma solidum' in the older literature. Many
of these tumours are not without a
certain differentiation, manifested by the
production of mucin-like substances, and
special staining procedures are essential
for their identification.

The term 'combined epidermoid and
adenocarcinoma' has been applied to the
'comparatively rare tumour which should
in some parts have definite evidence of
epidermization as well as features that
would qualify other parts unequivocally as
adenocarcinomas'. Some pathologists
designate these tumours as 'mucos-
epidermoid carcinomas', but in the WHO
classification this term has been reserved
for tumours where origin from bronchial
glands is definite, or where goblet cells
can be distinguished. The term 'combined'
has been reserved for tumours containing
two different kinds of differentiation from
one and the same cell, while the term
'mixed' has been used in connexion with
tumours with differentiation showing re-
semblance to epithelium as well as to con-
nective tissue.

Changes in Sulphonamide and Antibiotic
Resistance of E. coli in Urinary Infections
outside Hospital during a 12-Year Period

W. A. GILLESPIE and K. B. LINTON (Uni-
versity of Bristol)

The drug resistance was recorded of
lactose-fermenting coliform bacilli (nearly
all of which were E. coli) from urinary
infections in pregnant women during the
past 12 years. Sulphonamide resistance
increased slightly, from an average of 6 %
of all strains during the years 1959-64 to an
average of 12 % during 1966-70. Ampicillin
resistance rose from 2 % in 1964 to 11 % in 1970. Resistance to
nitrofurantoin and nalidixic acid remained
below 5 % and 7 % respectively probably
because these drugs were rarely used. No
trimethoprim-resistant strains were found
since testing began in 1969.

The resistance patterns in E. coli
urinary infections in non-pregnant women
in 1969 and 1970 were similar to those in
pregnant women during the same years.
The resistance of the predominant
coliform bacilli of healthy adults' faeces in
the same population was also similar.
Approximately 60 % of the resistant
strains from faeces and urine were able to
transfer their resistance to a sensitive E. coli recipient.

Sulphonamides will probably retain their
value for primary treatment of acute
urinary infection outside hospital for some
years to come.

Influence of Employment with Livestock on
Antibiotic-resistant E. coli in the Faeces of
Healthy People

K. B. LINTON, M. H. RICHMOND, AND W. A.
GILLESPIE (University of Bristol)

Faeces of healthy adults and of children
under the age of 5, none of whom were
attending hospital nor receiving antibi-
otics, were examined for the presence of
antibiotic-resistant coliform bacilli.

A higher proportion of children (73 %)
than of adults (49 %) carried resistant
strains and this difference was observed
in both the rural and urban groups.

Rural members of both age groups more
often carried resistant organisms than
urban members. Among rural adults, the
incidence of drug-resistant strains was
63 % in those whose occupation involved
close contact with farm animals, com-
pared with 29 % in those with other
occupations. The survey took place before
the implementation of the Swann Report
could have influenced the use of antibi-
otics in animal foodstuffs.

Transmissible R-factors were demon-
strated in 61 % of the resistant strains.

The incidence of transmissible resistance
was similar among adults and children in
town and country.

Haematological Findings and Fits during
the Prevention and Treatment of Folate
Deficiency in Long-term Anticonvulsant
Therapy

R. D. EASTHAM AND J. JANCAR (Frenchay
Hospital, Bristol)

Folate deficiency has been frequently
reported in epileptic patients treated with
anticonvulsants and in psychiatric patients,
and folate supplements have been reported
to cause toxic symptoms in normal
subjects, and as increasing fit frequency
whilst improving mental state in epileptic
patients.

Yeast supplements, a natural source of
folic acid, were given to both epileptic and
non-epileptic, non-anaemic, mentally re-
tarded patients. After three months of
treatment with yeast, corresponding to
the average normal red cell life, red cell and
serum folate estimations were repeated in
each clinical group. In the epileptic
patients, on long-term treatment with
anticonvulsants, both serum and red cell
folic concentrations increased signifi-
cantly, whereas in non-epileptics only the
red cell folate concentration increased
significantly in female patients. There was
only a poor direct correlation between
serum and red cell folate concentrations.
The mean red cell volume was directly
related to the daily dose of pheno-
barbitone, but red cell and serum folate
concentrations were only poorly inversely
related to phenobarbitone dosage,
suggesting a different mechanism for the
macrocytosis caused by phenobarbitone.

The number of fits recorded in epileptic
patients during yeast therapy fell below the
previous control period, and such yeast
supplements have been effective in re-
pairing folate deficiency without causing
clinical trouble at very low financial cost,
eliminates the need for costly and tedious
laboratory estimations of serum and red
cell folate concentrations in these patients.
(The cost of yeast supplements per patient
per three months of treatment is approxi-
mately 10p.)

Foetoprotein Estimation in the Diagnosis of
Hepatoma

J. KORN AND M. ADINOLFI (Queen Mary's
Hospital, Roehampton, and Guy's Hospital,
London)

Alpha, foetoprotein (α1FP) is a normal
Influence of employment with livestock on antibiotic-resistant E. coli in the faeces of healthy people.
K B Linton, M H Richmond and W A Gillespie

J Clin Pathol 1971 24: 767
doi: 10.1136/jcp.24.8.767-b

Updated information and services can be found at:
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