

PERINATAL PRESCRIBING TO INDOOR PATIENTS IN NEHRU HOSPITAL, POSTGRADUATE INSTITUTE OF MEDICAL EDUCATION AND RESEARCH, CHANDIGARH

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SUMMARY

Perinatal prescribing trends in the ward of the Obstetric Department were studied. Postnatal prescriptions (94) and antenatal prescriptions (16) were audited under heads of generic/trade name, dosage interval, duration of treatment and dosage form used. In most cases (60% dose and duration (98%) of drugs prescribed were not mentioned and except polypharmacy in some cases, the prescribing was rational.

INTRODUCTION

A medical audit is a systematic way of evaluation the quality of care provided by the physicians (Sanazaro 1974). It is also defined as the evaluation of medical care in retrospect through analysis of clinical records; to provide full benefit of medical knowledge effectively and rationally (Uppal et al 1984). An earlier study (Uppal et al 1988) was carried out to study perinatal prescribing in outpatients. This study was carried out in indoor patients to assess the prescribing of drugs in immediate postnatal period with regard to the drugs used,

their dosage, frequency of intake, duration of treatment, number of drugs prescribed per patient, indications, any side effects and above all the use of generic or brand names in prescriptions. The purpose of the study was to determine the perinatal drug prescribing trends, and to the possibility of the passage of drugs from the lactating mother to the neonate.

MATERIAL AND METHODS

A pretested specially designed form was used to record the required information from the drug prescription chart and hospital record of each patient. This was done once a week by one of the authors (N.R.B.) in both Septic Labour Room

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and Maternity Ward of the Nehru Hospital attached to Postgraduate Institute of Medical Education and Research. All the drugs prescribed in a single 24 hour period were recorded, including each drug's generic or brand name, dose, route, dosage form, indications, whether the duration was mentioned or not, and if there was any change of drug or not and if it was changed, was it due to lack of response or to adverse drug reaction (ADR). Prescriptions for 110 patients were audited. The sample comprised of 60% patients who had Caesarean deliveries (due to pre-eclampsia, eclampsia, pregnancy induced hypertension, antepartum haemorrhage etc.) and 40% were either cases of breech, forceps or normal vaginal delivery. Tabulation, analysis and scoring was done in consultation with collaborating colleagues from the Obstetrics and Gynaecology Department.

RESULTS

One hundred and ten prescriptions were audited. The range of drugs per prescription varied from 1 to 10. Table I

shows the number of drugs. The total number of drugs prescribed in these 110 prescriptions are 546. The prescribing trends are shown in Table II. Change of

Table I

Number of drugs per prescription

Prescription containing :	Total prescriptions	
	Total	Percentage
One drug	3	2.73
Two	5	4.54
Three	15	13.64
Four	25	22.73
Five	23	20.91
Six	16	14.54
Seven	10	9.09
Eight	11	10.00
Nine	1	0.90
Ten	1	0.90
	110	

Table II

Therapeutic audit of drugs prescribed in perinatal period

Brand	Generic	Dosage form		Frequency		Duration		Dosage in mg		Change in drug	
		Mentioned	Not mentioned	Mentioned	Not mentioned	Mentioned	Not mentioned	Mentioned	Not mentioned	Yes	No
241 (44.14%)	305 (55.86%)	529 (96.89%)	17 (3.11%)	541 (99.08%)	5** (0.92%)	9 (1.65%)	537 (98.35%)	218 (39.93%)	328 (60.07%)	10* (1.83%)	536 (98.17%)
		Cap. = 91									
		Tab. = 385									
		Inj. = 37									
		Others = 16									
		Total = 529									

* Out of these 10 cases, 6 were due to non-responsiveness to antibiotic, so the drugs were changed after culture and sensitivity. The rest 4 were due to adverse drug reaction (one causing diarrhoea due to Ampicillin, one causing nausea and vomiting due to Nitrofurantoin and two Penicillin hypersensitivity).

** Out of these, one was with Ampicillin

Table III
Number of drugs in different categories

Analgesics	Antimicrobials	Haematinics & vitamins	Others (Anti-epileptic, antidiabetic, diuretics, antiasthmatics, drugs for heart disease etc.)
61 (11.17%)	133 (24.36%)	260 (47.6%)	92 (16.85%)

drug either due to resistance or adverse drug reaction were noted from the treatment sheets.

Table III shows the number of drugs prescribed in different categories like analgesics, antimicrobials, nutritional supplements etc. Analgesic and antipyretics were given to the patients for pain and fever. Vitamins and iron were given routinely as supplements. Out of 133 antimicrobials drugs, 83 were given in 63 cases after their Caesarean deliveries, 58 antimicrobials were given to 38 cases without Caesarean deliveries. They included either twins, breech, forceps or normal vaginal deliveries. In cases of puerperal sepsis, more than one antibiotic was given.

DISCUSSION

From the results it is evident that 55.86% drugs were prescribed by generic name. This trend should be encouraged to reduce the cost of therapy and to get rid of confusion in the brand name. Earlier studies have shown a preponderance of generic prescribing for admitted patients (Uppal et al 1984). In most cases dosage forms and frequency of administration were also mentioned, except one case where the frequency of

ampicillin was no mentioned. Specification of duration of the drugs were not absolutely necessary in these cases, as all the patients were admitted and reviewed daily. It is remarkable that only in about 40% drugs the amount of dosage were mentioned. This is pertinent when tablets/capsules containing different amount of drugs are available in the market.

The largest number of patients were prescribed 3-6 drugs at a time, 3-4 were nutritional supplements (haematinics and vitamins) which constituted almost 50% of all the drugs prescribed. The antimicrobials ranked next (25%) followed by others (including a wide variety of drugs like antidiabetic, antiasthmatic, antiepileptic etc.) which constituted 17% and analgesics were prescribed to the tune of 11%.

Among the nutritional supplements, sometimes three preparations were prescribed at a time e.g. (Fefol = iron + folic acid). Cal de cee (calcium) and Supradyn (along with other vitamins it contains iron and calcium). Similarly, B complex and multivitamins were prescribed together. In a prescription for analgesics, fortagesic, voveran and paracetamol were prescribed together to a patient after Caesarean section. In prescribing antibiotics, some combination

