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Patients' Attitudes Towards Analgesic Usage in Nsukka Community

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ABSTRACT

Analgesics, though relatively safe, are among the commonly used and abused drugs. Many people concomitantly take the same analgesics of different brands thereby contributing to analgesic nephropathy. In this study we examined patients' attitudes towards analgesic usage. Male and female patient of ages 11 to 70 years were approached in the Nsukka community out-patient hospital; pattern of analgesic use was assessed by response to questionnaires. Six hundred and ninety three patients completed the questionnaires. The clinical conditions for which the patients used analgesics for were headache, general body pains, stomach pains, menstrual pains, chest pain, tooth ache and pains associated with other disease conditions. Acetaminophen, phenylbutazone, indomethacine, metamizole, and ibuprofen were the most frequently used analgesics. Generally 79.8% of the patients were on self medication, while 60% of the patients' preferred injectable to oral analgesics also 90% of the patients had already taken analgesics before coming to the hospital. There is need for analgesic education programme placing emphasis upon the hazard associated with analgesics abuse.

Keywords: Patients, Analgesics, Attitudes, Usage, Community.

INTRODUCTION

One of the most widely used and abused drugs all over the world are pain-killers, pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage [1]. Pain killers (Analgesics) currently represent the mainstay of pain management, with an array of drugs available, aspirin, acetaminophen, non-steroidal anti-inflammatory drugs (NSAIDs), mixed agonist and antagonists and narcotic analgesics [2].

People believe there is a pill for every illness, at the onset of all kinds of minor disorders; they immediately take analgesics, heavy use of analgesics, particularly over-the-counter (OTC) products, has long been associated with chronic renal failure. Several studies have reported associations between chronic renal failure and use of other forms of analgesics, including acetaminophen, aspirin, and other non-steroidal anti-inflammatory drugs (NSAIDs) [3]**.** Abuse of analgesics has long been associated with the development of chronic renal failure. The clinically well-defined entity of classic analgesic nephropathy is a slowly progressing disease resulting from the daily consumption over several years of mixtures containing at least two antipyretic analgesics, usually combined with caffeine and/or codeine, both creating a psychological dependence. It is characterized by renal papillary necrosis and chronic interstitial nephritis, which once established tend to progress to end-stage renal disease (ESRD) [4].

The incidence of ESRD and expenditures related to its treatment has been increasing consistently and in 2002 the direct cost amounted to $8,211 billion [5]. The progressive nature of chronic renal disease and the high costs of its treatment underscore the importance of identifying preventable causes of this disease [3]

Breaking patients' beliefs about the abuse and misuse of analgesics is a key factor in controlling the unnecessary use of analgesics. Also understanding patients' attitude to analgesic usage may facilitate more effective communication between the clinician and patient, as well as aid in the development of strategies to educate patients and the public [6].

Since use of analgesics is widespread and new OTC products are introduced frequently, the potential impact of these drugs on the development of chronic renal failure may be significant, thus warranting continued evaluation of these products for any renal toxicity.

The aim of this study is to obtain information regarding the attitudes of patients to analgesic usage in the community, the outpatient departments have been chosen because both rural and urban population of different classes and socio-economic background daily come to these outpatient departments from various parts of Nsukka to take treatment of their common diseases.

MATERIALS AND METHODS

This was a cross-sectional study using a pre-tested interviewer-administered questionnaire, carried out in the outpatient clinic at Nsukka community hospital from January 8, 2005, to April 30, 2005. Nsukka community hospital is a missionary hospital situated at Enugu road in Nsukka. This study involved universal sampling of patients who were 11 years and above and who just received their medicine from outpatient department after visiting various clinics within the hospital. A 5-question pretested and validated questionnaire was developed to conduct this study. The questions were related to patient demographical information and about their attitudes to analgesic usage. Respondents who took analgesics were asked whether the analgesic was prescribed by their physician, pharmacist, nurse, self. Multiple choice questions in which it is possible to choose more than one answer were asked, closed question needing "Yes or No" were also asked.

In addition to eliciting participants' responses to these questions, the survey also included questions addressing participants' knowledge on dosage, duration and frequency of administration of analgesic use. For the question, "How do you take your analgesic?", respondents' knowledge of analgesic usage was classified into the following categories: had already taken analgesic before coming to hospital (C1), correct dose of analgesic (C2), usually take analgesic for one day (C3), usually take analgesic for three days (C4) , usually take analgesic for seven days (C5). Other questions relating to respondents' knowledge on mode of administration of injectable analgesic were classified into the following categories: "How do you administer your injectable analgesic ?", prefer oral analgesic to injectable analgesic (C6), administer once a day (C7) , administer for three days (C8), administer for seven days (C9), dissatisfied when injectable analgesic is not taken (C10). Answers to survey items 1 to 10 were yes/no. Those who refused to answer a question were not included in the analysis. [7].

Statistical analysis
The statistical tests used were chi-square test and One-way analysis of variance (ANOVA).

RESULTS

Demographic characteristics
Gender
The sample consisted of 693 respondents: 442 (63.7%) females and 251 (36.3%) males, analgesic usage was more common in females. Majority of patients, 40.4% reported taking analgesics for headache, 23.4% of the patients took analgesics for general body pain, 22.5% of patients used analgesics for other pains associated with other disease conditions, 7.94% of the took analgesics for stomach pain, 3.18% of the patients reported taking analgesic for menstrual pain, while small proportion of the patients 1.15% and 0.87% used analgesic for tooth ache and chest pain as indicated in fig.1.

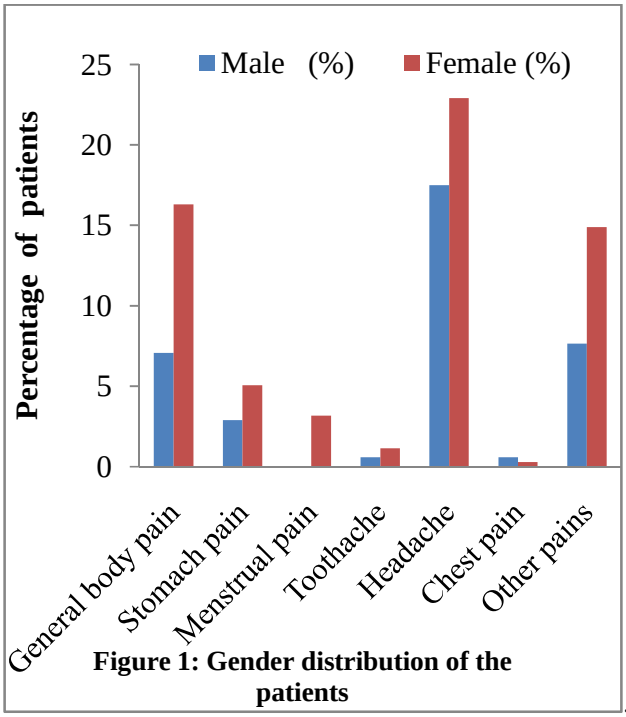

Figure 1: Gender distribution of the patients

Age

Analgesic use varied by age group with the highest use among persons 20–34 years old (40.2%), followed by those > 35 (32.3%) as shown in fig 2.

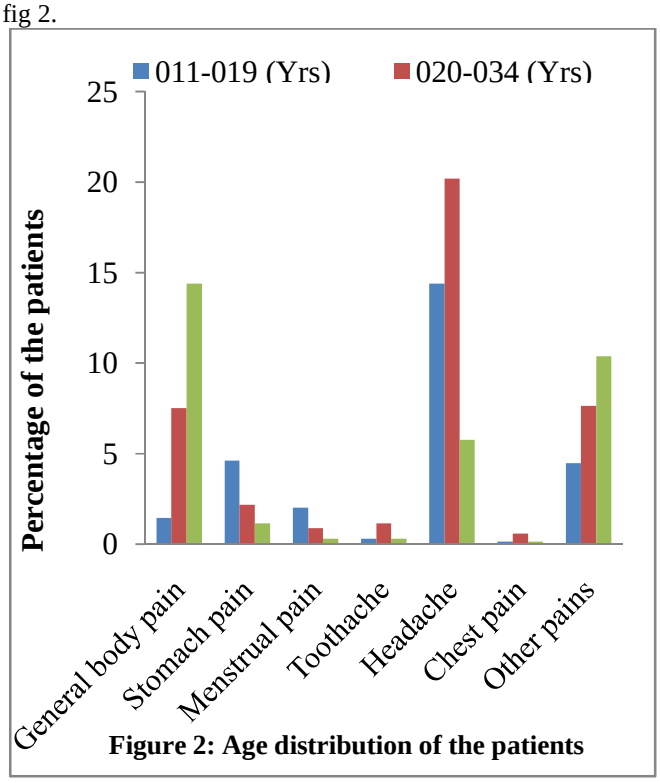

Figure 2: Age distribution of the patients

Educational level

36.9% of the patients were civil servants , 29.7% were students, 23.7% were self employed while 9.67% were unemployed (fig.3).

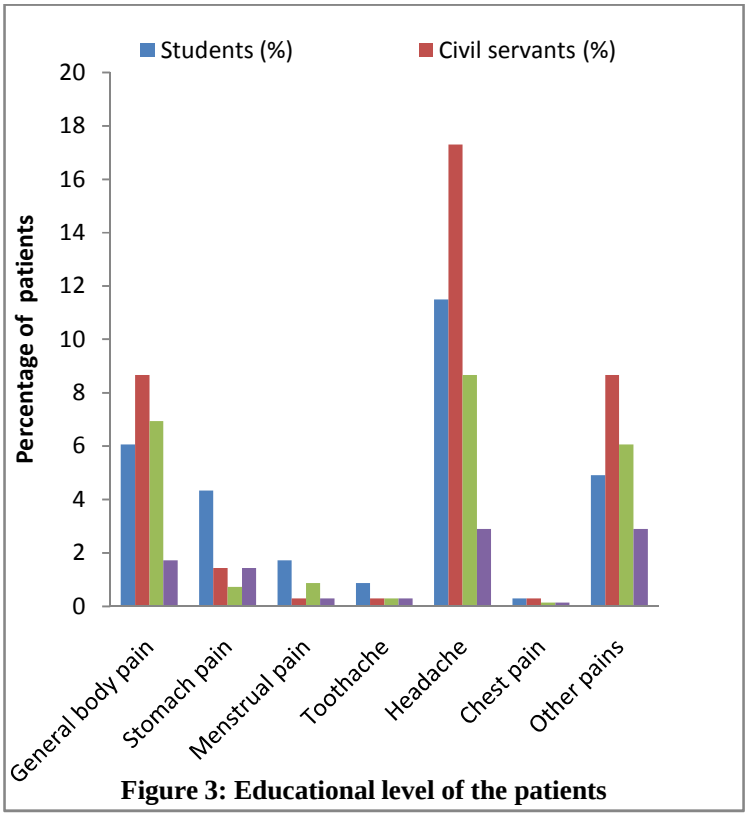

Figure 3: Educational level of the patients

We found no significant differences in analgesic use among groups defined by gender, age and education level (P>0.05).

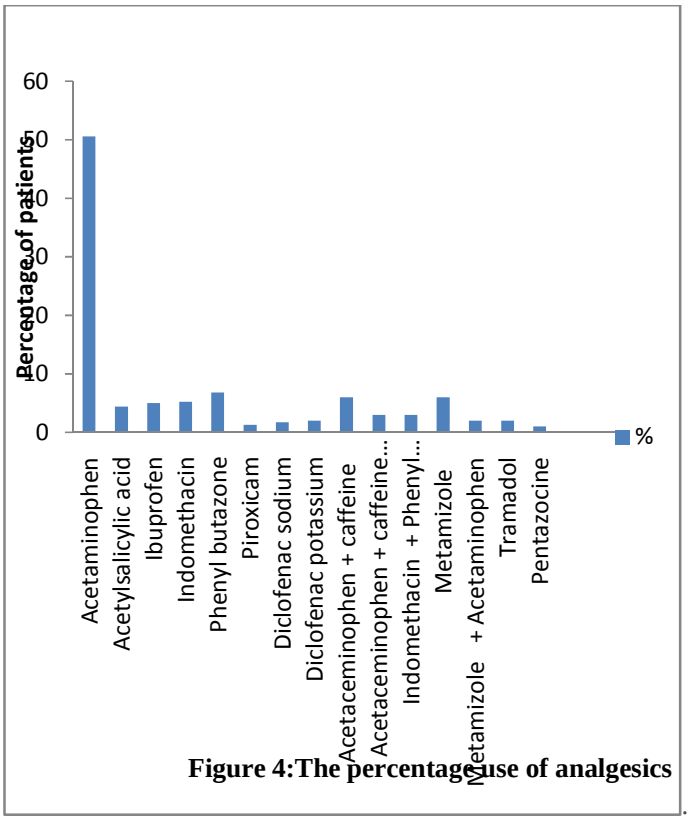

Figure 4:The percentage use of analgesics

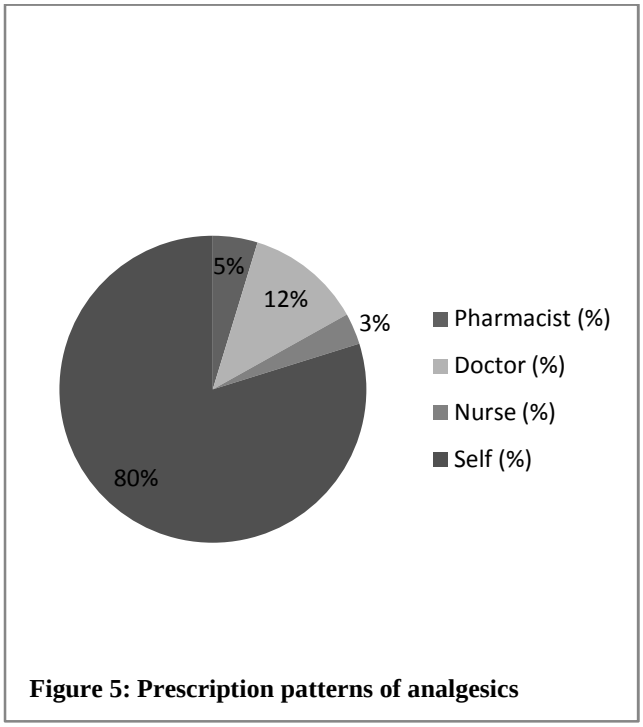

Figure 5: Prescription patterns of analgesics

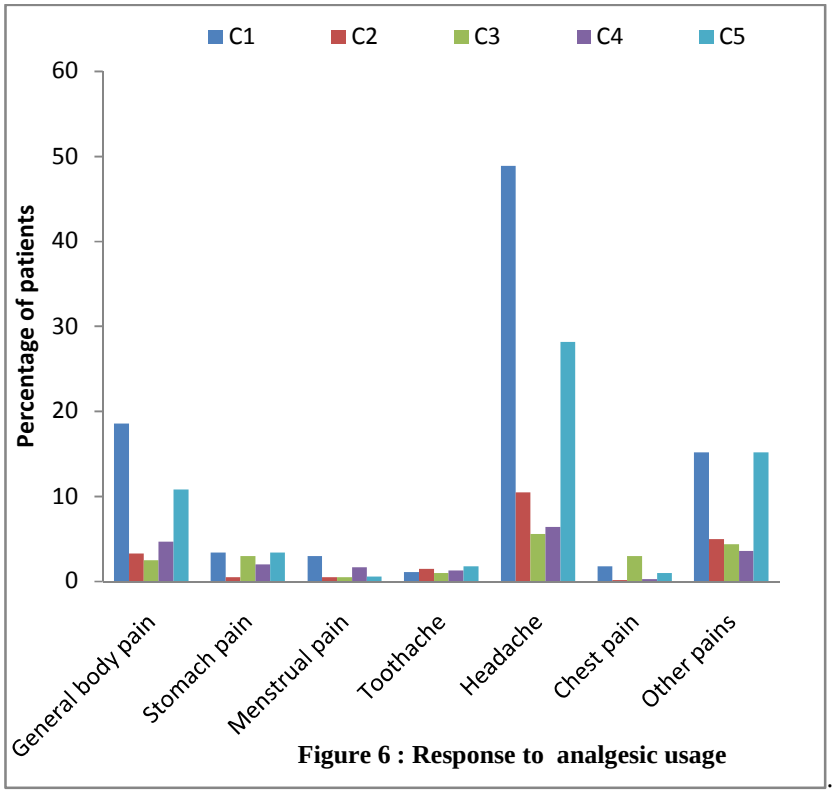

Figure 6 : Response to analgesic usage

Analgesics usage

Use of acetaminophen was reported by 50.6% of participants; phenyl butazone by 6.8%, acetaminophen + caffeine, metamizole by 6.0%, indomethacin by 5.2%, ibuprofen by 5.0%, acetyl salicylic acid by 4.4%, acetaminophen and

caffeine by 4.0%, acetaminophen + caffeine + acetaminophen, indomethacine +phenyl butazone by 3.0%, diclofenac potassium, metamizole, tramadol, metamizole + acetaminophen by 2.0%, diclofenac sodium by 1.7%, piroxicam by 1.3% and pentazocine by 1.0% as shown in Fig.4.

Prescription pattern of analgesics

12% of respondents had analgesics recommended by a doctor, 5% by a pharmacist, and 3% by a nurse while 80% were solely on self medication (Fig.5).

Response to analgesic usage

90% had already taken analgesics before hospital visit, 40% of respondents took correct dose of analgesics, 20% reported taking analgesics for one day, and 20% reported using analgesics for three days while 40% claimed taking analgesics for one week (Fig.6).

Response to mode of administration of injectable analgesic

60% of the participants preferred parenteral route for analgesic administration, 85% reported taking injectable analgesic for one day, 10% claimed taking the injectable analgesic for three days, 5% reported taking the injectable analgesic for one week while 58% were dissatisfied when they miss injectable analgesics (Fig.7). The degree of analgesic abuse and misuse was significant ($P<0.05$).

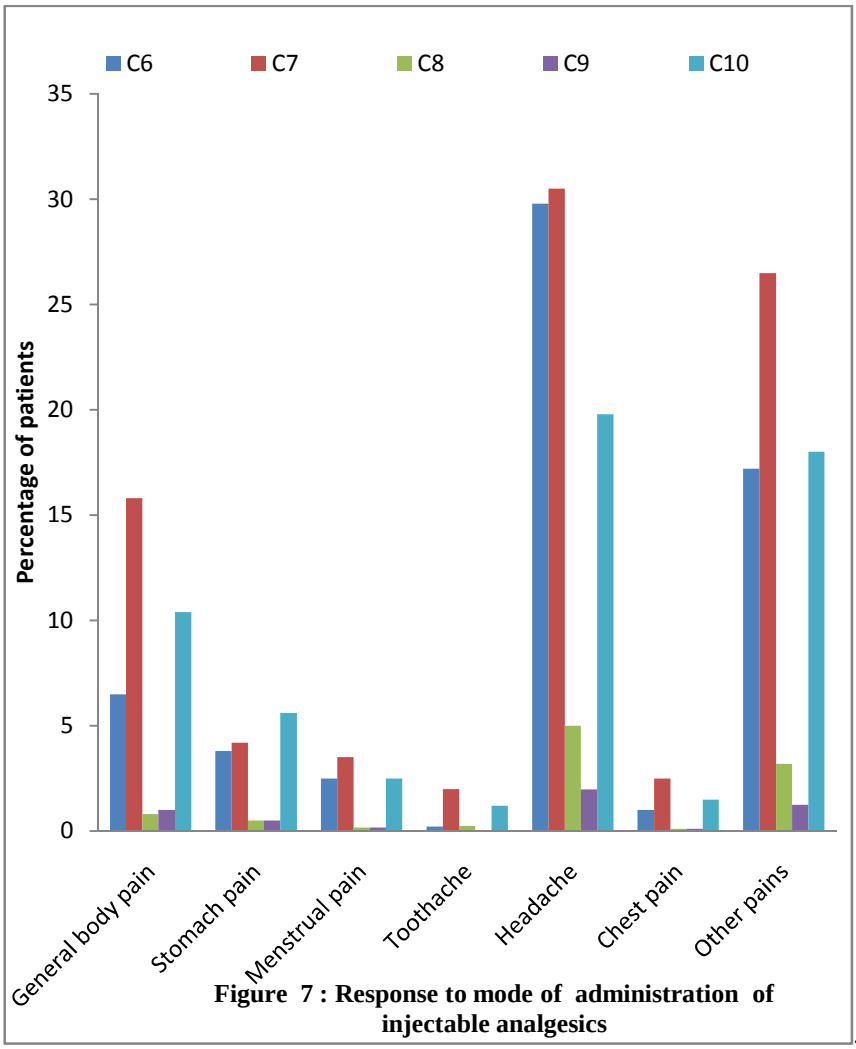

Figure 7 : Response to mode of administration of injectable analgesics

DISCUSSION

This survey identified persons in demographic groups who had both higher levels of misconceptions and lower levels of knowledge about the potential adverse impact of analgesics. These groups included persons of higher socioeconomic status (higher education and income), females and males, those in younger age groups, and the elderly. Persons of higher socioeconomic status have better access to health care and are more likely to use analgesics in general [8]. Of all the pains mentioned, other pain associated with sleep, weakness of the body, stress and tiredness was the only unusual indication for analgesics.

Acetaminophen, a common household analgesic [9] was inappropriately used for all types of pains; it was abused for tiredness, stress, weakness of the body and sleep. Of the OTC analgesics, acetaminophen has generated the greatest concern with respect to renal disease because it is the major metabolite of phenacetin, although not the only metabolite [3]. Other analgesics such as indomethacin, acetaminophen+ caffeine and metamizole were misused by the respondents by combining them with acetaminophen to treat all types of pains.

Metamizole is a readily available, relatively cheap and highly efficacious analgesic that is widely prescribed in Africa, Europe and South America, argument for continuing to use this drug if only selected patients is unconvincing [10,11]. Caffeine has been used with the aim of enhancing the effects of analgesics, while some patients appear to have obtained increased analgesia with caffeine others have failed to find any benefit. It can add to gastrointestinal adverse effects and in large dose can itself cause headache [12].

Indomethacin is a potent drug with many serious side effects and should not be considered an analgesic for minor aches and pains or fever. The drug is best used as an anti-inflammatory, rather than an analgesic [13].

Phenylbutazone is a drug of uncertain safety status [14] was reported to have been combined with indomethacin by some of the respondents for treatment of some pains, chronic analgesic nephropathy, particularly chronic interstitial nephritis and renal papillary necrosis, results from daily use for many years of mixtures containing at least two analgesics and caffeine or dependence-inducing drugs [15].

Self medication took up a large portion of the source of recommendation of the analgesics. Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment [16] .The results of our findings is similar to research conducted by Pokhara *et al* (2002) , this showed that acetaminophen and other NSAIDs were the drugs most commonly used for self-medication [17].
Only 40% of the total number of respondents actually knew how to take the correct dose of analgesics, almost all the respondents had already taken analgesic (acetaminophen) before hospital visit. The abuse of acetaminophen for headache is further confirmed by a research carried out by Edmeads (1990), in which several recent data suggest the daily use (or more accurately abuse) of analgesics actually worsen or perpetuates headache [18] . More than half of the respondents usually take the analgesics for one week. This may be as a result of the absence or insufficiency of verbal information given when the drugs are dispensed. Verbal explicit instruction encourages greater compliance [19].

About 60% of the respondents' preferred parenteral route for the administration of their analgesics, the reasons is the route is faster and more effective than the oral administration. Few of the respondents usually take the injectable analgesic for one week. Many of them expressed dissatisfaction when they missed injectable analgesics. This is in disagreement with treatment guidelines, which states that injectable analgesics are rarely necessary; they should be reserved for patients with acute pain. Pharmacokinetics and clinical trials indicated that oral forms of drugs are effective as injections, with oral medications more cost effective [20, 21].

The results also suggest that peoples' knowledge and attitudes regarding analgesic use can be substantially improved and that improved knowledge may be important for efforts to reduce the misconceptions and misguided expectations contributing to inappropriate analgesic use [22].

This study has also clear limitations. First, recall bias is naturally the limitation of all questionnaire studies. Second, a majority of the questionnaires were answered in English, but in some cases were translated from local dialect to English and there might be some differences caused by different terms in these languages. Finally, the questionnaire was limited only to patients attending outpatient clinic; thus, the results cannot be generalized to every patients in

Nsukka community. Important strengths of our study were an excellent response rate and availability of a researcher to help with clarification when patients were completing questionnaires.

CONCLUSION

This study shows that patients often have inadequate knowledge and misconceptions on analgesic usage, improved patient education may reduce unnecessary analgesic usage and chronic renal failure in the community.

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