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## **SAFETY INFORMATION COMMUNICATION**

Medicine	Title
NSAIDs	<b>Non-steroidal anti-inflammatory Drugs (NSAIDs) that inhibit cyclooxygenase with risk of renal impairment, decreased urine output and oligohydramnios in fetus during pregnancy</b>

### ***1. Introduction***

Reference is made to the signal assessment conducted by Rwanda FDA on Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) that inhibit cyclooxygenase with risk of renal impairment, decreased urine output, and oligohydramnios in fetus

Further reference is made to the SmPC of certain NSAIDs medicines which clearly indicated that during the third trimester of pregnancy NSAIDs which are prostaglandin synthesis inhibitors may expose to fetus risks of renal impairment that may progress to renal failure associated with oligohydramnios (1)(2)

It is this regard that Rwanda FDA conducted the assessment of the potential risk of renal impairment, decreased urine output and oligohydramnios in fetus associated with NSAIDs use for appropriate regulatory action including communicating to healthcare professionals of this potential signal.

### ***2. Description of the safety information***

NSAIDs are a class of medicines available by prescription and OTC. They are some of the most commonly used medicines for pain and fever most of them are used also to treat medical conditions such as arthritis, menstrual cramps, headaches, colds, and the flu. Some NSAIDs are available alone and combined with other medicines. Some examples of NSAIDs include aspirin, ibuprofen, naproxen, diclofenac, celecoxib,...(3)

The mechanism by which NSAIDs induce renal dysfunction is likely to be related to their interference with prostaglandin synthesis, by reversibly inhibiting the two major isoforms of the enzyme cyclooxygenase (COX-1 and COX-2). The blockade of prostaglandin synthesis by NSAIDs and the decreased activation of prostaglandin receptors reduce renal perfusion. This leads to reduction in the production of fetal urine, the main source of amniotic fluid which result to oligohydramnios in fetus (4)

In WHO Pharmaceutical Newsletter No 2 of 2021 the MHLW (*Ministry of Health, Labour and Welfare of Japan*) and the PMDA (*Pharmaceuticals and Medical Devices Agency of Japan*) have announced the risk of renal impairment, decreased urine output in fetus and oligohydramnios in pregnant women following use of NSAIDs (5)

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Reference to the assessment conducted by the Authority, it was found that some NSAIDs are registered in Rwanda and the provided Summary Products Characteristics (SmPC) mentioned the risk of renal impairment, decreased urine output and oligohydramnios in fetus. It is with the above background that Rwanda FDA would like to communicate information related to the above events related to the use of NSAIDs in pregnant woman at 20 weeks or later.

### 3. Information to Consumers/Patients/Caregivers

- Avoid use NSAIDs at 20 weeks or later in pregnancy unless specifically advised to do so by your health care professional because these medicines may cause problems in your unborn baby.
- Always read drug labels before use of any drug, as many drugs contain NSAIDs (ibuprofen, diclofenac, indomethacin, ketoprofen,...) especially those used for pain, colds, flu, insomnia...
- In case of pain and fever during pregnancy. Talk to your pharmacist or health care professional for help deciding which might be the best.
- Any question or concern about NSAIDs or which medicines containing them should be addressed to your pharmacist or health care professional for safety reason.

### 4. Information to Healthcare Professionals

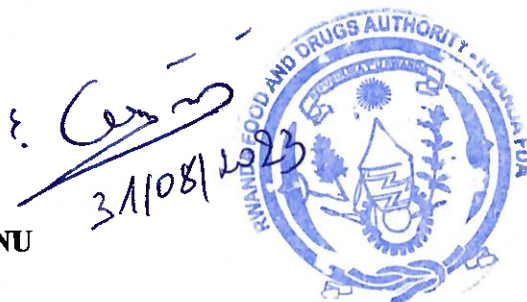
- Rwanda FDA recommends health care professionals to avoid prescribing NSAIDs from 20 weeks and later in pregnancy.
- If NSAIDs treatment is determined clinically necessary, limit use to the lowest effective dose and shortest duration possible. Consider ultrasound monitoring of amniotic fluid if NSAID treatment extends beyond 48 hours and discontinue the NSAID if oligohydramnios is found.
- Rwanda FDA is warning that using NSAIDs around 20 weeks' gestation or later in pregnancy may cause fetal renal dysfunction leading to oligohydramnios and, in some cases, neonatal renal impairment.
- These adverse outcomes may be seen as soon as after 48 hours to weeks of treatment.
- Oligohydramnios is often, but not always, reversible with treatment discontinuation.
- Report the suspected adverse reactions related to the use of NSAIDs to Rwanda FDA.

### 5. Reporting Channel

Patients and Healthcare Professionals are urged to report any risk of renal impairment, decreased urine output and oligohydramnios in fetus which should occur due to the use of NSAIDs to Rwanda FDA by completing ADR/AEFI reporting form accessible on Rwanda FDA website via the link [https://rwandafda.gov.rw/wp-content/uploads/2022/11/ADR\\_AEFI\\_Reporting\\_form.pdf](https://rwandafda.gov.rw/wp-content/uploads/2022/11/ADR_AEFI_Reporting_form.pdf) and the filled form should be sent to the email: [pv\\_sm@rwandafda.gov.rw](mailto:pv_sm@rwandafda.gov.rw) and copy to [info@rwandafda.gov.rw](mailto:info@rwandafda.gov.rw).

Sincerely,

**Prof. Emile BIENVENU**  
**Director General**



## 6. References

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