# Febrile Neutropenic Episodes in Men Treated with Docetaxel Chemotherapy for Metastatic Hormone-Sensitive Prostate Cancer (MHSPC)

**Descriptor:**

An audit to assess rates of febrile neutropenia (FN) in men with metastatic hormone-sensitive prostate cancer treated with docetaxel chemotherapy.

**Background:**

Recent clinical trials proving the benefit of docetaxel chemotherapy in hormone-sensitive metastatic prostate cancer (HSMPC) have reported a greater risk of febrile neutropenia (FN) than seen in the castrate-resistant setting. STAMPEDE1 reported 15%, CHAARTED2 6% and GETUG-AFU153 7% grade 3-5 FN in comparison with Tax-3274 which showed 3% FN. Clinical experience at our centre suggested the risk of FN was higher than that experienced in these trials.

## The Cycle

**The standard:**

ASCO guidelines 20155 state: “primary prophylaxis with a CSF starting with the first cycle and continuing through subsequent cycles of chemotherapy  is recommended in patients who have an approximately 20% or higher risk for FN based on patient-, disease- and treatment-related factors”.

**Target:**

100% of men receiving docetaxel for HSMPC should receive primary prophlyaxis with GCSF if the FN rate is ≥20%.

## Assess local practice

**Indicators:**

FN defined as fever >37.5 oC, ANC <1.0 requiring admission to hospital and IV antibiotics

**Data items to be collected:**

Patient Demographics

WHO PS

Stage

Grade

Episode of FN

Use of GCSF

Dose Reductions

Cycles completed

**Suggested number:**

50

**Suggestions for change if target not met:**

Discuss at local drugs and therapeutics committee.

Adjust local protocols to include GCSF in prescription

**Resources:**

Case Notes

Chemotherapy Prescriptions

**References:**

1. 1. James ND, Sydes MR, Clarke NW et al. Addition of docetaxel, zoledronic acid, or both to first-line long-term hormone therapy in prostate cancer (STAMPEDE): survival results from an adaptive, multiarm, multistage, platform randomised controlled trial. The Lancet 2016;387; 1163 - 1177
2. 2. Sweeney CJ, Chen YH, Carducci M et al. Chemohormonal Therapy in Metastatic Hormone-Sensitive Prostate Cancer. New Engl J Med 2015; 373; 737-46.
3. 3. Gravis G, Fizazi K, Joly F et al. Androgen-deprivation therapy alone or with docetaxel in non-castrate metastatic prostate cancer (GETUG-AFU15): a randomised, open-label, phase 3 trial. Lancet Oncol 2013; 14; 149-58.
4. 4. Tannock IF, de Wit R, Berry WR et al.Docetaxel plus Prednisolone or Mitoxantrone plus Prednisolone for Advanced Prostate Cancer.  New Engl J Med 2004; 351; 1502-12.
5. 5. Smith TJ, Bohlke K, Lyman GH, et al. Recommendations for the Use of WBC Growth Factors:American Society of Clinical Oncology Practice Guideline Update. J Clin Oncol 2015: 33: 3199 – 3212.

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**Published Date:**

Saturday 14 March 2020

**Last Reviewed:**

Friday 20 May 2016