6.07 Re-Audit of Non-Invasive Ventilation (NIV) Practice in a Level 3 Hospital

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Background: BTS guidelines state that NIV should be given in appropriate clinical areas by trained staff using optimal settings[1]. An audit performed last year revealed suboptimal BTS adherence and NIV quality in our hospital, hence a NIV pathway was introduced. This re-audit assessed for improvement post intervention. **Methods:** A retrospective review of 11 patients, identified using HIPE coding, admitted to Wexford General Hospital with Type 2 respiratory failure (T2RF) whom received NIV from July to December 2023. **Results:** Average age was 69. 64% had COPD. 31% were on LTOT pre-admission and 55% had NIV prior. Initial audit average age was 67, 84% had COPD, 27% were on LTOT and 38% had NIV prior. In both groups, all patients had T2RF requiring NIV on initial gas. 92% had chest X-ray before NIV. Ceiling of care documentation improved from 38% to 91%. NIV checklist completion decreased to 60% from 69%. Average initial pressures were the same (IPAP 15, EPAP 5). All patients had repeat ABG's; 55% within one hour versus 61.5% in the initial audit. Setting adjustment remained suboptimal with inappropriate adjustments in 64% compared to 54%. However, over-all outcomes were improved with acidosis resolution rate of 100% versus 77%. **Conclusion:** BTS guidelines adherence improved but remains suboptimal. Checklist completion rates decreased by 9%, nevertheless, the 53% improvement in ceiling of care documentation has significant clinical implications. Further NIV education is needed, particularly on setting adjustment. Education sessions are planned with a re-audit to follow. **Keywords:** Type 2 respiratory failure (T2RF), Non-Invasive ventilation (NIV).

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References:

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