Plymouth Dialysis Unit – we noted in local clinical practice a significant increase in the number of dialysis patients developing dermatitis due to frequent cleansing of the fistula with chlorhexidine 2%.

Therefore we aimed to determine if using alternative skin preparation will reduce the number of dermatitis incidents within the dialysis population receiving RRT via arterio venous fistulae. We conducted a clinical audit to determine whether the use of Octenilin for skin preparation will reduce the number of dialysis patients developing dermatitis and consequently improving the longevity of the patients’ dialysis access.

The audit focused on finding out the clinical benefits of Octenilin versus Chlorhexidine, to identify the benefits and the possible side effects of using Octenilin in practice.

Before introducing Octenilin in clinical practice, advice was sought from wider MDT to include renal consultants, tissue viability and infection control lead nurses at Derriford Hospital. We also networked with other dialysis units in United Kingdom to determine if they have encountered similar problems and if so, to learn about their solution to the problem.

In addition to this, we also researched the literature available and the national renal guidelines to find an alternative to Chlorhexidine.

Benchmarking across the units in South West identified that dermatitis due to chlorhexidine use is more common that initially suspected. Dialysis units across the South West have introduced either Octenilin or Povidone Iodine as an alternative to chlorhexidine where dermatitis on dialysis fistulas was a concern. However , there was no data collected by either of the SW units to support the finding in clinical practice. Locally it has been agreed to introduce Octenilin. This was also supported by the new guidelines published by the British Renal Society for skin preparation when dermatitis is evident. The project had the support of local tissue viability and infection control teams. Given that Octenilin sachets are not licensed for specific use in dialysis patients , it is solely licensed for the cleaning of the skin and mucosa prior to urinary catheter insertion, this prompted a local risk assessment to highlight any potential access related complications .

The local clinical audit focused on the number of patients identified with dermatitis in January 2016, before Octenilin was introduced and compared this information with the audit results from August 2016, 6 months after Octenilin was introduced.

This was monitored on a monthly basis and our findings were divided into four easy categories :

 a. no improvement( no change to skin colour and inflammation)

b. slight improvement ( reduced skin inflammation and area affected)

c. good improvement ( less than 25% skin surface remains affected)

d. excellent improvement ( no dermatitis)

The audit findings identified insignificant changes in month one with 47% of the audited patients showing slight improvement in month two. Interestingly for 13% of patients there was no improvement until the change to Octenilin had been in place for three to four months and for one patient they had been using Octenilin for four months before they had any improvement in their dermatitis. This inconsistency could be caused by the severity of the dermatitis on the individual patients which would explain the increased period of time to heal the affected area of skin.

**Conclusions from Findings**

The clinical audit results show conclusively that all patients previously suffering from dermatitis were clear of any signs of dermatitis six months after the change of skin preparation from Chlorhexidine to Octenilin. Although the time period for healing the affected skin differed quite considerably this is probably due to the differences in the individuals’ initial affected skin prior to the introduction of the Octenilin. No patients had any adverse reactions to the Octenilin despite it being primarily licensed for the antimicrobial cleaning and decontamination of the skin prior to urinary catheter insertion.

The questionnaire showed all of our staff had a good knowledge of dermatitis symptoms and were well equipped to identify this on our patients’ skin. However some staff were unaware of the consequences of dermatitis on a patients (AVF) or (AVG). The introduction of Octenilin as skin preparation for patients affected by dermatitis has had a positive effect on our patients’ skin and consequently avoided further complications with the patients’ dialysis access resulting in the best outcomes for our patients.

Due to the findings of this audit, there has been continued use of Octenilin as a skin preparation for those patients who have had localised dermatitis skin irritation from the use of Chlorhexidine as agreed by the OHNT Infection Control Team supported by the British Renal Association Guidelines (2016).

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