Lymphoedema in Wales - Mixing Oedema and Infection

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Incidence- Cancer

- Breast cancer 28% with RT 37%.
- Gynae cancer 30-75%
- Urological cancer 20-95%
- Skin cancers- melanoma 25%
- Head and Neck 50%
Non- Cancer Incidence

- **Trauma & Tissue damage**: burns, VV surgery, Wounds,
- **Venous Disease**,
- **Infection**: repeated cellulitis
Lymphoedema Treatment

- No Medication-hands on, skin care, massage, exercise, healthy weight, advice, support, encouragement, bandaging and compression garments
Cost of Not Treating

- Primary lymphoedema
- House bound
- Immobile
- Carers 3 times daily
- Admitted to hospital 6 times in last 12 months with Cellulitis averaging 60 days. (£20,000)
Patient Journey 10 Wasted Years

- Numerous appointments with GP for infections and pain
- Referred to consultant dermatologist
- Vascular surgeon
- Orthopaedics
- Plastic surgery
- Palliative care
- District nurses
- Tissue viability nurse
- Palliative care nurse
- Physiotherapy
- Occupational therapy
- Dietetics
- Chiropody
- Social work
- Counselling

Not forgetting numerous hospital admissions for Cellulitis
Difference in Two Weeks Treatment

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The Cost Savings of Appropriate Treatment

In 1 year inappropriate Rx cost £10,000
Treated 23 times in Lymphoedema Clinic
Wasted Resources

- Delayed discharge
- Length of stays in hospital
- Waiting lists
- Wasted prescriptions
- Support staff contacts
Cost to The State

- 25% time off work, 8% unable to work
- Current All Wales Caseload 8500
- In Wales up to 2225 people might take time off work
- 680 may have ceased to work
Cellulitis Audit Figures

- 46% developed Cellulitis episodes prior treatment.
- Post lymphoedema management 9%
- Of patients hospitalised with 3+ infective episodes prior rx, only 10% have relapsed since treatment.

Saving the NHS £135,000.
The Strategy..

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- 70 pages
- 8 chapters
- 101 references
- 10 recommendations
- 25 key actions with time scales

Strategy Recommendations

- Implement lymphoedema education and training packages, aimed at all levels of staff...reducing associated risks like cellulitis.
- Develop evidence based cellulitis care pathways and implemented use across all health care settings.
- Carry out an audit of lymphoedema patients gaining access to assessment, treatment, **cellulitis**, and prevention schemes.
- Agored Cymru Lymphedema Education
- AWMMG
- National Lymphoedema Formulary
- Auditing/ Research effects of lymphoedema and cellulitis all Wales basis
- All Wales Antimicrobial Guidance
Cellulitis
Costs to the Patients and the NHS
Infections- Cellulitis
CONSENSUS DOCUMENT

Patients with lymphoedema are at high risk of developing cellulitis and many suffer recurrent episodes. A consensus on the management of cellulitis and recurrent cellulitis in patients with lymphoedema is available FREE to download on the BLS website homepage at www.thebls.com

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Size of the Problem of Cellulitis (Also known as Erysipelas or Lymphangitis)

- This disabling and painful condition occurs as both a precursor of lymphoedema and as a complication
- 29% of lymphoedema/chronic oedema patients develop cellulitis (underestimation)
- 27% of that group admitted to hospital for IV
- Huge costs to patient and the NHS - Cox (2006)
Cellulitis

- Cellulitis is both a cause and a complication of Lymphoedema.
- The occurrence of Lymphoedema varies between 10% and 19% amongst cases of Cellulitis.
- 50% of patients with Lymphoedema experiencing at least one bout of cellulitis.
- In a study of 176 patients admitted to hospital with cellulitis, lymphoedema was found to be a major risk factor and was present in 18% of cases.
- One paper identifies cellulitis as a complication in 20-30% of lymphoedemas.
Cellulitis

- Untreated cellulitis leads to tissue damage which in turn damages the initial lymphatic’s that increases the risk of further cellulitis attacks

- Most episodes are believed to be caused by Group A Streptococci infection. However, microbiologists consider Staph aureus to be the cause in some patients
# Cellulitis Guidelines
## Management At Home

<table>
<thead>
<tr>
<th>Home care</th>
<th>First line</th>
<th>Allergic to penicillin</th>
<th>Second line</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute cellulitis</td>
<td><strong>Amoxicillin</strong> 500mg 8hourly TDS Evidence of Staph aureus Folliculitis In addition or Alternative <strong>Flucloxacillin</strong> 500mg 6hourly QDS</td>
<td><strong>Erythromycin</strong> 500mg 6 hourly QDS OR <strong>Clarithromycin</strong> 500mg 12 hourly BD</td>
<td><strong>Clindamycin</strong> 300mg 6 hourly QDS</td>
<td><strong>NO LESS THAN 14 days course</strong> May need up to 1-2 months</td>
</tr>
</tbody>
</table>
## Cellulitis Guidelines of Management in Hospital

<table>
<thead>
<tr>
<th>Hospital</th>
<th>First line</th>
<th>Allergic to penicillin</th>
<th>Second line</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute cellulitis</td>
<td>Amoxicillin IV 2g 8 hourly OR</td>
<td>Clindamycin IV 600mg 6 hourly</td>
<td>Clindamycin iv 1.2g 6 hourly</td>
<td>Switch to Amoxicillin 500mg 8 hourly when temp↓ and Inflammation resolved</td>
</tr>
<tr>
<td></td>
<td>Benzylpenicillin 1.2-2.4g 6hourly</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>OR</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Flucloxacillin IV 2g 6hourly</td>
<td></td>
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</tbody>
</table>
Cellulitis Prophylaxis for Recurrent Cellulitis

<table>
<thead>
<tr>
<th>First line</th>
<th>Allergic to penicillin</th>
<th>Second line</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2 or more attacks per year</strong></td>
<td>Penicillin V 500mg once a day (daily)</td>
<td>Erythromycin 500mg once daily is recommended</td>
<td>Clarithromycin 250mg once daily is an alternative</td>
</tr>
<tr>
<td><strong>However needs</strong></td>
<td>1g if weight over 75kg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Flucloxacillin Vs Amoxicillin

- Both antibiotics are effective against Group A beta haemolytic streptococci however, amoxicillin needs a lower inhibitory concentration

- Evidence suggests that amoxicillin has a better tissue penetration than Flucloxacillin

- Patients seem to tolerate Amoxicillin better than Flucloxacillin e.g. gastrointestinal disorders

- No resistance to either antibiotic has been observed, therefore no advantage to either drug

- Although the consensus group favours AMOXICILLIN as the first line oral antibiotic for treating cellulitis in Lymphoedema, Flucloxacillin is considered to be an acceptable alternative. However experience in the Lymphoedema clinical field has shown Amoxicillin to be the first choice
ABMUHB

- All Wales policy - Primary care Antimicrobial guidelines within ABMUHB.

- “Patients with lymphoedema/chronic oedema presenting with cellulitis may require antibiotics for 14 days or longer (see Lymphoedema Guideline).

- ALL patients with lymphoedema/chronic oedema and cellulitis should be referred to the Lymphoedema Service. A referral form is available via COIN. Advice is also available over the telephone 01792 285252 Mon – Fri 8am – 4.30pm.” pg 31
How can we improve the patient journey and save money?
• Education
• Empower patients
• Early referral to services
• Emergency Admission Pathway
• Prevention
• All Wales Cellulitis Guidance
References

- http://www.thebls.com/
- International consensus Best Practice for the management of Lymphoedema document: http://www.woundsinternational.com/pdf/content_175.pdf
References

References