Stroke – Core Skills Training

Stroke Prevention
Outline

• WHAT IS STROKE
• STROKE SECONDARY PREVENTION ITS IMPORTANCE
• STRATEGIES TO PREVENT STROKE RECURRENCE
• Keys to successful recurrent stroke prevention
• RISK FACTORS FOR SECONDARY STROKE PREVENTION
• PHARMACOTHERAPY
• POSSIBLE BARRIES TO MEDICATION NON ADHERENCE
• MEDICATION DISCHARGE COUNSELLING
WHAT IS STROKE

• Basically an interruption in the flow of blood to the brain
• Leads to brain cell death
• Results in various functional disabilities
STROKE SECONDARY PREVENTION IT IS IMPORTANT

- A person who has survived a stroke or has had a TIA is at an increased risk of having another stroke

- Second stroke often have a higher rate of death and disabilities
STRATEGIES TO PREVENT STROKE RECURRENCE

• Reducing risk factors

• Adherence to treatment

• Adherence to pharmacotherapy
Keys to successful recurrent stroke prevention

• Good communication between healthcare professionals and people with stroke or TIA, as well as their families and carers, is essential.

• It should be supported by evidence-based written information tailored to the person's needs.

• Treatment, care, and the information people are given, should be culturally appropriate
RISK FACTORS FOR SECONDARY STROKE PREVENTION

• TREATABLE RISK FACTORS
  • Hypertension
  • High cholesterol
  • Atrial fibrillation
  • Diabetes

• ABOVE CONDITIONS NEED TO BE MANAGED WITH MEDICATIONS
RISK FACTORS FOR SECONDARY STROKE PREVENTION

• MODIFIABLE RISK FACTORS
  • Physical inactivity and obesity
  • Smoking
  • Excessive alcohol
  • Poor diet

• LIFESTYLE MODIFICATION CAN REDUCE RISK OF RECURRENT STROKE

• NON-ADHERENCE to stroke prevention medication is another risk factor to recurrent stroke
PHARMACOTHERAPY

• ADHERENCE TO PHARMACOTHERAPY IS KEY IN THE PREVENTION OF RECURRENT STROKE

This is treatment or management of conditions using medication

• One of the major strategies to preventing stroke recurrence

• Non adherence to medications increase stroke recurrence
MEDICATIONS IN STROKE SECONDARY PREVENTION

- A  Antiplatelets/Anticoagulants
- B  Blood pressure lowering medication
- C  Cholesterol lowering medications
- D  Diet, diabetes medication, depression medication
POSSIBLE BARRIERS TO MEDICATION NON ADHERENCE

• Side effects

• Indication for medications

• Medication cost

• Medication availability
ASSESS PATIENT / FAMILY LEVEL OF MEDICATION ADHERENCE

- Identify patient/family’s barriers to medication adherence

- THERE ARE FIVE CATEGORIES TO MEDICATION ADHERENCE
FIVE CATEGORIES TO MEDICATION ADHERENCE

The Five Dimensions of Adherence

1. Social & Economic
2. Health Care System
3. Condition-Related
4. Therapy-Related
5. Patient-Related
MEDICATION DISCHARGE COUNSELLING

• BEFORE COUNSELLING A PATIENT/CARER
  – Ensure that all medications have been prescribed for stroke recurrence
  – You know about the medications’ dosage form dose, how it should be taken, side effects and possible interaction
  – A medication list has been prepared indicating
    – The name of medication
    – What its for
    – How often and time to take
    – Special instructions e.g. TAKE 30MIN BEFORE FOOD
DISCHARGE COUNSELLING

• Talk to patient about each medication. what its for, how it should be taken, possible side effects and what to do in the event he/she is experiencing side/adverse effect
DISCHARGE COUNSELLING

- Assessment of patient’s response to counseling
  - Patient was engaged in counseling session and verbalized understanding
  - Patient was engaged in counseling session, could not verbalized understanding
  - Patient was not engaged in counseling session
  - Patient was not appropriate for counseling
  - Patient found counseling beneficial
  - Patient did not find counseling beneficial
<table>
<thead>
<tr>
<th>NAME OF DRUG</th>
<th>WHAT IT'S FOR</th>
<th>HOW OFTEN AND WHAT TIME TO TAKE</th>
<th>SPECIAL INSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASPRIN 75MG</td>
<td>TO THIN THE BLOOD</td>
<td>ONE TABLET TO BE TAKEN DAILY</td>
<td>DISSOLVE IN 10MLS OF WATER AND DRINK EVERY MORNING AFTER BREAKFAST</td>
</tr>
</tbody>
</table>
# ANTIPLATELETS

<table>
<thead>
<tr>
<th>ANTIPLATELETS</th>
<th>DOSE/FREQUENCY</th>
<th>SIDE EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASPIRIN</td>
<td>75MG DAILY</td>
<td>BRONCOSPASMS, G.I. IRRITATION</td>
</tr>
<tr>
<td>CLOPIDOGREL</td>
<td>75MG DAILY</td>
<td>DYSPEPSIA, ABDOMINAL PAIN, DIARRHOEA, BLEEDING DISORDERS</td>
</tr>
<tr>
<td>DIPYRIDAMOLE</td>
<td>300-600MG DAILY IN DIVIDED DOSES</td>
<td>G.I. EFFECTS, DIZZINESS, MYALGIA, HEADACHES, HYPOTENSION</td>
</tr>
</tbody>
</table>
ANTIHYPERTENSIVES

• These are medications to lower high blood pressure

• Classes of antihypertensives include
  • Calcium channel blockers (CCB)
  • Diuretics
  • Angiotensin converting enzymes inhibitors (ACEI)
  • Angiotensin receptor blockers (ARB)
  • Beta blockers (BB)
<table>
<thead>
<tr>
<th>STATINS</th>
<th>DOSE/FREQUENCY</th>
<th>SIDE EFFECTS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROSUVASTATIN</td>
<td>5-10MG DAILY</td>
<td>RHABDOMYOLYSIS, MYALGIA, MYOPATHY, MYOSITIS</td>
<td>MAX DOSE: 20MG DAILY</td>
</tr>
<tr>
<td>ATORVASTATIN</td>
<td>10-80MG DAILY</td>
<td>RHABDOMYOLYSIS, MYALGIA, MYOPATHY, MYOSITIS</td>
<td>MAX DOSE: 80MG</td>
</tr>
</tbody>
</table>
Patients with Naso-gastric tube administering medications

- Use other forms such as syrups, suspensions, suppositories for such patients

- Check if tablets can be crushed and medication not destroyed in the process before crushing
<table>
<thead>
<tr>
<th>NAME OF DRUG</th>
<th>WHAT IT'S FOR</th>
<th>HOW OFTEN AND WHAT TIME TO TAKE</th>
<th>SPECIAL INSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMLODIPINE 10MG</td>
<td>TO CONTROL BLOOD PRESSURE</td>
<td>ONCE DAILY IN THE MORNING</td>
<td></td>
</tr>
<tr>
<td>RAMIPRIL 10MG</td>
<td>TO CONTROL BLOOD PRESSURE</td>
<td>ONCE DAILY WHEN GOING TO BED IN THE EVENING</td>
<td>REPORT TO DR OR PHARMACIST WHEN COUGHING PERSISTENTLY WHILE TAKING MEDICATION</td>
</tr>
<tr>
<td>CLOPIDOGREL 75MG</td>
<td>TO THIN THE BLOOD AND PREVENT CLOT FORMATION</td>
<td>ONCE DAILY IN THE MORNING</td>
<td>TAKE AFTER MEALS LET DR OR PHARMACIST KNOW IF YOU ARE ASMATIC OR HAVE STOMACH ULCER</td>
</tr>
<tr>
<td>ATORVASTATIN 40MG</td>
<td>TO MANAGE BLOOD CHOLESTROL</td>
<td>ONCE DAILY WHEN GOING TO BED IN THE EVENING</td>
<td>REPORT TO DR OR PHARMACIST WHEN EXPERIENCING PAINS IN THE LEG</td>
</tr>
<tr>
<td>CITICOLINE 1G</td>
<td>TO IMPROVE MEMORY AND OXYGEN CARRYING BLOOD TO THE BRAIN</td>
<td>TWICE DAILY IN THE MORNING AND EVENING</td>
<td></td>
</tr>
<tr>
<td>FLUOXETINE 20MG</td>
<td>TO MANAGE AFTER STROKE DEPRESSION</td>
<td>ONCE DAILY IN THE MORNING</td>
<td></td>
</tr>
</tbody>
</table>
Thank you
Disclaimer

- This presentation was developed collaboratively by the Wessex Ghana Stroke Partnership group in 2014 to support a face-to-face training programme. The content has been designed to be relevant to the Ghanaian setting, and may not have been updated to any reflect changes in policy or evidence-base since this date.

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