Quality report STROKE – 2013/14

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Background

Quality report STROKE is part of an effort to find effective and medically adapted approaches for long term quality improvement in Primary Care. We would like to find a method where medication use is incorporated into the evaluation of the quality of medical care from a clinical perspective. The project is led by the Stockholm County Council Drug and Therapeutics Committee, Sections of family medicine and neurological diseases, Academic Primary Care Centre, Karolinska Institute Stroke Research Network at Stockholm South Hospital, and HSF unit for analysis and evaluation division for development. Economic support is provided by Stockholm County Council, the Stockholm Drug and Therapeutics Committee (DTC), BLIWA and Folksam Research Foundations.

This presentation of quality parameters with relevance to work in primary care is based on national guidelines as well as recommendations according to the Swedish Association of Family Medicine (SFAM) and the Stockholm DTC. Data has been acquired from the Stockholm County Council Database on Healthcare Consumption (VAL-database). From the VAL-database we have extracted patients with a diagnosis of stroke, TIA, and atrial fibrillation in the past 5 years. These diagnoses have been matched to the equivalent diagnoses in primary care the past 2 years.

Referenser

- National Guidelines for Stroke Care
- SFAM Q Quality Indicators
- National Guidelines for Heart Disease
- Riksstroke Registry yearly report 2014
- The Wise List – Recommended medication use in Stockholm County

Contact

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Primary care plays an important part in providing good stroke preventive care to patients after they have had a stroke/TIA and/or atrial fibrillation. In your center fewer/more patients than the county mean have their diagnosis recorded. Of your patients older than 65 years of age X% have a diagnosis of atrial fibrillation which is lower than/in line with SFAM's (Swedish Association of Family Medicine) target (3.5%). Patients are diagnosis recorded to a lower/higher degree than the county mean in your center. Dispensation of anticoagulants in this group is below/over the county mean. For other secondary preventive medications in stroke/TIA dispensation is below/over the county mean. We hope that this report can be a foundation for internal discussion about how stroke and atrial fibrillation guidelines can be translated into daily practice. As in all registry data, error can occur, either in the input or output phase.

Authors note: Original is not in colour. Text in red and green depends on the result of the center in question with either red or green option being chosen.

Primary Care can prevent stroke by early detection, diagnosing, and the treatment of risk factors. Atrial fibrillation, previous stroke/TIA, diabetes mellitus, and hypertension, as well as negative life style factors all contribute to an increased risk. Increased diagnosis recording in primary care is associated with the increased degree of patients picking up preventative medications at the pharmacy.

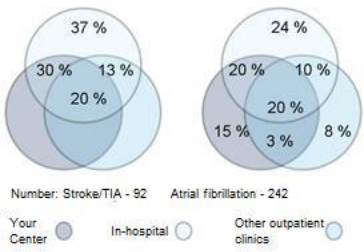

DIAGRAM 1. The diagram show the distribution of patients with stroke/TIA and atrial fibrillation diagnoses, respectively, listed at your primary care center. The same diagrams show the proportion of these diagnoses which are found in hospitals, hospital based clinics, and primary care, respectively.

Degree of diagnosis recording

Degree of diagnosis recording shows the proportion of patients with a diagnosis from hospital have also received the diagnosis in primary care. Dispensation of preventive medication, on the whole, seems to mirror the degree of diagnosis recording. The proportion of patients who are diagnosis recorded in primary care varies greatly between primary care centers in the county. This variation is partially explained by factors such as extent of referrals from hospitals or patients being seen by specialists elsewhere. However, a great degree of variation is likely due to primary care doctors.

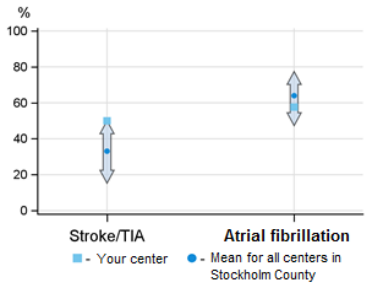

Diagram 2. Proportion of patients listed at your primary care center that have had their diagnosis recorded there 2013-2014. These patients have all received a hospital diagnosis sometime 2010-2014. The figure also shows the mean degree of diagnosis recording for centers in the county. 80% of centers can be found between the arrowheads.

Stroke prevention – Stockholm County Council Committee on drug use:

Primary prevention

- Blood pressure control – treat if hypertension (>140/90)
- Stop smoking
- Encourage a healthy diet and regular exercise
- Good blood glucose control if diabetes mellitus
- Atrial fibrillation: calculate CHA_2DS_2VASc-score, treat with anticoagulant if indicated.

Secondary prevention

- Life style changes – see "Primary prevention"
- Cerebral infarction/TIA without suspicion of embolization:
  - Antithrombotic treatment
  - Blood pressure treatment
  - Statins
- Cerebral infarction/TIA with suspicion of embolization
  - Anticoagulantion
  - Blood pressure treatment
  - Statins
- Hemorrhagic stroke:
  - Blood pressure treatment

Depression is common after stroke. Ask, diagnose and treat as needed.

Medications

- Antithrombotic treatment (TIA/ischemic stroke without atrial fibrillation):
  - Aspirin 75 mg + Persantin depot 200 mg b.i.d, or
  - Clopidogrel 75 mg q.d.
- Anticoagulant treatment (TIA/ischemic stroke with atrial fibrillation):
  - Warfarin with a goal of INR 2,0–3,0 or
  - New oral anticoagulants according to special guidelines (see janusinfo.se)
- Blood pressure treatment (TIA/ischemic or hemorrhagic stroke):
  - ACE-inhibitors or ARBs
  - Calcium antagonists
  - Diuretics
- Statin treatment (TIA/ischemic stroke):
  - Simvastatin (20)–40 mg q.d. or
  - Atorvastatin 10–80 mg q.d.

Quality of prophylactic treatment after TIA/stroke

There are three groups of patients in primary care to consider when choosing prophylactic treatment for patients who have had a stroke/TIA.

1) Ischemic stroke or TIA without atrial fibrillation
2) Ischemic stroke or TIA with atrial fibrillation, and
3) Hemorrhagic stroke

Recommendations on choice of drug treatment for each group see column on the left.

Prophylactic medications

Drug treatment after stroke/TIA is effective but the proportion of treated patients varies greatly between listed patients at different centers in Stockholm County. Recommended treatment varies according to risk group (1-3 above):

1. Antihypertensives, statins, antiplatelets
2. Antihypertensives, statins, anticoagulants
3. Antihypertensives

In general, patients who have their diagnosis recorded in primary care seem to receive better treatment than those without a recorded diagnosis. Improving life style factors such as smoking and physical activity is also very important but improvements are difficult to measure.

Distribution in Stockholm County, diagnosis the previous 5 years			
Risk group		Number	%
1	Isch stroke without atrial fibrillation	14153	39,9
1	TIA without atrial fibrillation	7510	21,2
2	Isch stroke with atrial fibrillation	7437	21,0
2	TIA with atrial fibrillation	2599	7,3
3	Hemorrhagic stroke	3770	10,6

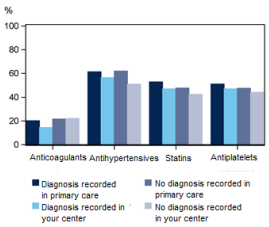

Diagram 3. Proportion of treated patients in your center, by diagnosis recorded/non-diagnosis recorded patients and risk groups described above. The county mean is also included for comparative reasons.

Quality of prophylactic treatment in atrial fibrillation

Risk scoring in atrial fibrillation

The risk of ischemic stroke can be estimated using the CHA_2DS_2VASc scoring system. If a patient has 0 points no treatment is recommended. If 1 point anticoagulants should be considered. If >1 points anticoagulants are recommended.

Prophylactic drug treatment in atrial fibrillation in your center and in the county

There are great health benefits to embolic prophylaxis for patients with atrial fibrillation. Anticoagulants are very effective with a risk reduction of at least 60% on a group level, even after the risks of treatment are accounted for. In the county, there is a great correlation between estimated CHA_2DS_2VASc class and anticoagulant treatment for atrial fibrillation patients as a group. However, there is great variation and thus a can contribute to better care of your patients.

Risk factor	Points
Heart failure	1
Hypertension	1
Age >75 ys	2
Age 65–75 ys	1
Diabetes	1
Prior stroke/TIA/ thromboembolism	2
Atherosclerotic disease	1
Female sex	1

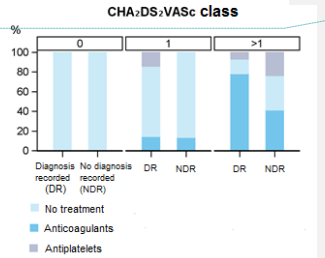

Diagram 4. Distribution of diagnosis recorded and non-diagnosis recorded patients with atrial fibrillation in patients listed at your center 2013-14. Diagnosis recording is associated with better preventive treatment in general.

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