APPENDIX A

ETHICAL PERMISSION LETTER

SRI RAMACHANDRA UNIVERSITY
(Established under Section 3 of the UGC Act, 1956)

Porur, Chennai - 600 116.
Phone : 2476 8027, 31-33
Fax : 091-44-2476 5995
www.srmc.edu

INSTITUTIONAL ETHICS COMMITTEE
(Other than Clinical Evaluation of Drugs/Procedures/Devices/Diagnostics/Vaccine/Herbal Remedies)

Chairman:
Dr. Venkatesan P.

Member Secretary:
Dr. Padmavathi R.

Members:
Dr. Ramesh Hari Hara Iyer
Dr. Darling Chellathai David
Dr. C. D. Narayanan
Dr. T. S. Lokeswari
Dr. S. Nirupa
Dr. Nafini Ganesan
Dr. Ravishankar
Ms. A. G. Shanthi
Mr. S. Rethinakumar – Legal Consultant
Ms. Sheeba Vinod

To
Mrs. N. Bamini Devi
College of Nursing
SRU.

17.09.09.

Dear Madam,

REF: REF: IEC-NL/08/Aug/05/35

SUB: A study to evaluate the effect of comprehensive nursing education programme on quality of life among stroke survivors and care givers at SRH.

Thank you for submitting the clarifications raised by the Institutional Ethics Committee in its meeting held on 26.8.08. The Institutional Ethics Committee approves the project.

A Harvard Medical International Associated Institution
You are advised to be familiar with ICMR guidelines on Biomedical Research in human beings and also to adhere to the Principles of good clinical practice. You are required to submit the final report on the completion of study to the Institutional Ethics Committee.

Yours Sincerely,

(DR.R.PADMAVATHI)
Member Secretary

Note: Please quote IEC Reference number in all future communications.
APPENDIX B

PERMISSION LETTER FOR TOOL UTILIZATION

AMENDMENT TO LICENSE AGREEMENT (OGSR)

Effective Date: March 1, 2009
Licensee Name: Bamini Devi, RN, R.M.
License: PF1-090808-37763 / CT112746 / HOP037763
Approved Purpose: "A study to evaluate the effect of comprehensive nursing education programme on quality of life among stroke survivors and care givers at SRH"

This Amendment to License Agreement (OGSR) (the "Amendment") is entered into as of the Effective Date, by and between QualityMetric Incorporated ("QM") and Licensee.

Amended Terms of License

The following term(s) of the License are modified as indicated below.

License Fee: $0.00, payable per the attached invoice
Term: Beginning on March 1, 2009 and ending on December 31, 2009
Licensed Surveys: SF36v2® Health Survey, Standard Recall
- India (English)

Except as expressly modified by this Amendment, all terms and conditions of the License shall continue in full force and effect without change.

EXECUTED, as of the Effective Date, by the duly authorized representatives as set forth below.

Bamini Devi, RN, R.M.
Sri Ramachandra University, College of Nursing
Chennai, Tamil Nadu, 600078, INDIA

Signature: N.Bamini Devi
Name: N. BAmiNi DeVI
Title: AsST. PROF. College of Nursing, SRU
Date: 17/03/09

Sri Ramachandra University - AMENDMENT for Bamini Devi - 37763 - CT112746
On: License Amendment (Ogr) - 4.7.08
NON-COMMERCIAL LICENSE AGREEMENT
Office of Grants and Scholarly Research (OGSR)

License Number: PF1-090808-37763
Effective Date: October 5, 2008
Licensee Name: Bamini Devi, RN, R.M.
Licensee Address: Sri Ramachandra University, College of Nursing, Chennai, TamilNadu, 600078, INDIA
Requested Administrations: 600
Approved Administrations: Two Times Requested Administrations

Approved Use: Non-commercial academic research - unfunded - "A study to evaluate the effect of comprehensive nursing education programme on quality of life among stroke survivors and care givers at SRH"

Term: Beginning on January 1, 2009 and ending on December 31, 2009

Licensed Surveys: As indicated in Appendix B attached
Manuals: Licensee must purchase (or have purchased) from QM a copy of the manuals indicated in Appendix B attached
Royalty Fee: None, because this License is granted in support of the non-commercial Approved Use below

Administrative Fee: $0.00

Licensee accepts and agrees to the terms of this Non-Commercial License Agreement (the "Agreement") from the Office of Scholarly Grants and Research (OGSR) of QualityMetric Incorporated ("QM") as of the Effective Date.

Subject to the terms of this Agreement, including the QualityMetric Non-Commercial License Terms and Conditions attached as Appendix A: (a) QM grants to Licensee, and Licensee accepts, a non-exclusive, non-transferable, non-assignable, non-sublicensable worldwide license to use, solely for the Approved Use and during the License Term, the Licensed Surveys in the authorized Modes and Approved Languages indicated on Appendix B and to administer the Licensed Surveys only up to the Approved Administrations (and to make up to such number of exact reproductions of the Licensed Surveys necessary to support such administrations) in any combination of the specific Licensed Surveys and Approved Languages and Modes and to use any related software provided by QM and (b) Licensee agrees to pay the Administrative Fee and other applicable charges in accordance with the attached invoice.

Capitalized terms used in this Agreement and not otherwise defined herein shall have the meanings assigned to them in Appendix A. The appendices attached hereto are incorporated into and made a part of this Agreement for all purposes.

Bamini Devi, RN, R.M.
Sri Ramachandra University, College of Nursing
Chennai, TamilNadu, 600078, INDIA

Signature: [Signature]
Name: N BAMI NI DEVI
Title: ASSOCIATE PROFESSOR
SRCON, SRU, CHENNAI-116

For additional information about QM's OGSR, go to http://www.qualitymetric.com/advancing/
APPENDIX C
INFORMED CONSENT FORM
(PATIENT)

Title: Effectiveness of Comprehensive Stroke Education Programme on knowledge and quality of life among patients with stroke and knowledge and burden among caregivers at neurology wards, SRMC, Porur, Chennai – 600 116

Name of the Principle Investigator: N. BAMINI DEVI

You are being asked to sign this form so that I may use and release your health information for research purpose. Participation in research is voluntary. If you choose to participate in the research, you must sign this form so that your health information may be used for the research.

I, Mr / Ms.______________________, give my consent to be included as a subject in the stroke education programme. Purpose of the study is to educate the stroke patient and their caregiver on various aspects of stroke and its prevention. The duration of the study period will be 6 months after discharge. The Patient must follow the stroke education measures as taught by the investigator during the study period.

One of my family caregiver is taken for stroke education purpose. The caregiver must accompany the patient always during regular physician visit at SRH. The caregiver is also included for the study purpose; as the patient they also will be assessed for 6 months after the patient’s discharge.

I have been given the opportunity to question to all aspects of the study; I agree to fully co-operate with the researcher and to inform her/him immediately in case I suffer any unusual manifestation during the study. There is no cost for participating in this study. Participation is completely voluntary and no payment will be provided.

I understand that the information related to my participation in the study would remain confidential. I hereby give permission for the researcher of this to release the information obtained as a result of my participation in the study to national and international regulatory body, governmental agencies and as research reports or research paper.
I am also aware of my right to opt out of the study at any time during the course of the study without the need to give any reason. Participation in this study is completely voluntary and your consent is required before you can participate in this study.

I have read this consent form (or it has been read to me) and I fully understand the contents of this document and voluntarily consent to participate in the study. All of my questions concerning this study have been answered. In the case of any doubts arising in the future about this study they will be answered by the investigators listed below. I understand that this consent ends at the conclusion of this study.

Contact Address and Phone No. of the Principal Investigator:

N. Bamini Devi  
Assistant Professor 
Sri Ramachandra College of Nursing 
Porur, Chennai – 116  
Phone No. 9840079900

By signing this form, I agree to participate in this study. A copy of this form has been given to me.

Thank you for agreeing to participate in this study.

Date: Name:
Patient Signature /
Thumb impression
Contact Address

CERTIFICATE OF INFORMED CONSENT

I certify that I have explained the nature and purpose of this study to the above – named individual, and I have discussed the potential benefits of this study participation. The questions the individual had about this study have been answered, and we will always be available to address future questions.

Date: Name:
Consent Signature of Principal Investigator
APPENDIX D

XgG y; nj hп f F k; gbt k;
(Nehahs p)
j i yG gffth j j p h j t NghkUk; mt h i s ghj fh NghkUk;
ngyh t p k; gwpKOi kahd nrt gп hgbG
jpl j j p j ed i k gwp = , uhkrrej pп kU j j t k i d

M uharрpa h s hngah : eh ghkп pН tj p
(if Ngr pвz ; 9840079900)
gqF ngWgt hngah ;
t g h k ;

nj hi y Ngr pвz ;

j pl / j pkj p .......................... M f п ehd ; gffth j j p F
kU j j t k ; gwpf y t p j pl j j p F vд j d Ak ; , i z j j f ; nfrst j п;
KOrKkj k; j Uf п rd ; M uharрра h s h , e j fyt п j j п j ; t s f f k>
fpl LF k ; ed i k > gBF k ; fhj j j y ; ehd ; vд d nра Ntz Lk ; vд g j k>
ej jpl j j p h y ; VwpLk ; mwр hwy ; , i t gwpvdf F t s f F s s h h ;
,
ej garp j pl j j p ; Nghj vд D s ; Nj hd Wk ; Nf s т п F F t pl
Nlf t hag csj . Gbgpd ; Nghj Nj hd Wk ; t offj п F khwd
f ~ lqfs ; gwpAk ; M uharрра h s h k ; nj hп f Tk ; vд d h y ; , ad w KO
xjli ogGjuTk ; ehd ; ja huf c s N d ;

ehd ; gqF nfrs S k ; Nев j j y ; fpl LF k ; nра j п s ; KwpAyk;
urfп khd i t . M uharрра п ; Nghj vд ; t hag f t Uk ; , ej nра j п s
ehlBy k > nts п hн byk > rhff hh ; eht d qfs п y k ; M uharр
FU j j f s h f Nt h > M uharр fli L d haf Nh t h , ej nра j п s nts п h
vд KOrKkj k ; cs j .

garp п pl ; Nghj nts п laWtk ; gbgGf h y j j y ; vej Nев j j y k ; vej
fhuz k ; nrhY Njt a gy hK Y k ; ehd ; t п gl Tk ; c hп k vд F csj
vд W k ; mwр п d  ;

, ej M uharр п gbgG j pl j j y ; gqF nfrs xj j f ; nfhz l
c qf F F F ed п p .

Nehahs п pl ; i fnaOj j ............................. Njj p .............
nts п п hп r ......................... Njj p .............
M uharр pntag h i fnaOj j ............................. Njj p .............
APPENDIX E

INFORMED CONSENT FORM
(CAREGIVER)

Title: Effectiveness of Comprehensive Stroke Education Programme on knowledge and quality of life among patients with stroke and knowledge and burden among caregivers at neurology wards, SRMC, Porur, Chennai – 600 116

Name of the Principle Investigator: N. BAMINI DEVI

You are being asked to sign this form so that I may use and release your health information for research purpose. Participation in research is voluntary. If you choose to participate in the research, you must sign this form so that your health information may be used for the research.

I, Mr / Ms.______________________, give my consent to be included as a subject in the stroke education programme. Purpose of the study is to educate the stroke patient and their caregiver on various aspects of stroke and its prevention. The duration of the study period will be 6 months after discharge. The Patient must follow the stroke education measures as taught by the investigator during the study period.

One of my family caregiver is taken for stroke education purpose. The caregiver must accompany the patient always during regular physician visit at SRH. The caregiver is also included for the study purpose as patient as they also will be assessed for 6 months after the patient discharge.

I have been given the opportunity to question to all aspects of the study; I agree to fully co-operate with the researcher and to inform her/him immediately in case I suffer any unusual manifestation during the study. There is no cost for participating in this study. Participation is completely voluntary and no payment will be provided.

I understand that the information related to my participation in the study would remain confidential. I hereby give permission for the researcher of this to release the information obtained as a result of my participation in the study to national and international regulatory body, governmental agencies and as research reports or research paper.
I am also aware of my right to opt out of the study at any time during the course of the study without the need to give any reason. Participation in this study is completely voluntary and your consent is required before you can participate in this study.

I have read this consent form (or it has been read to me) and I fully understand the contents of this document and voluntarily consent to participate in the study. All of my questions concerning this study have been answered. In the case of any doubts arising in the future about this study they will be answered by the investigators listed below. I understand that this consent ends at the conclusion of this study.

**Contact Address and Phone No. of the Principal Investigator:**

N. Bamini Devi  
Assistant Professor  
Sri Ramachandra College of Nursing  
Porur, Chennai – 116  
Phone No. 9840079900

By signing this form, I agree to participate in this study. A copy of this form has been given to me.

Thank you for agreeing to participate in this study.

**CERTIFICATE OF INFORMED CONSENT**

I certify that I have explained the nature and purpose of this study to the above – named individual, and I have discussed the potential benefits of this study participation. The questions the individual had about this study have been answered, and we will always be available to address future questions.

Date: Name  
Patient Signature /  
Thumb impression  
Contact Address

Date:  
Consent  
Signature of Principal Investigator
APPENDIX G
LETTER FOR EXPERT OPINION

From
N.Bamin Devi,
Reader,
Sri Ramachandra University
Porur, Chennai- 600 116

To

Respected Sir / Madam,

Sub: Requesting for suggestion for content validity of the module and Booklet – reg.

I am working in Sri Ramachandra college of Nursing and pursuing my Ph.D. in Nursing at Sri Ramachandra University as a part time basis. I have chosen a research topic on ‘A study to assess the effectiveness of stroke education programme on knowledge and quality of life among patients with stroke and knowledge and burden among caregiver at neurology ward, SRMC, Porur, Chennai – 600 116’.

I request you to peruse the content of the teaching module and booklet and also give your valuable suggestion if any.

Herewith I am enclosing the content validity certificate. Kindly do the needful.

Thanking you

Date:                                                                                           Yours sincerely,
Place:

(N. BAMINI DEVI)
APPENDIX H

CONTENT VALIDITY CERTIFICATE

This is to certify that the module and booklet prepared by Mrs. N. Bamini Devi to do her research on ‘A study to assess the effectiveness of stroke education programme on knowledge and quality of life among patients with stroke and knowledge and burden among caregivers at neurology ward, SRMC, Porur, Chennai – 600 116’ as part of her Ph.D. work at Sri Ramachandra University were found to be valid to my knowledge to conduct her research.

Date:
Place:                                                Signature with seal
APPENDIX I
LIST OF EXPERTS

Dr. Ardith Z. Dorenboos,
Associate Professor, School of Nursing,
University of Washington
Seattle, USA.

Dr. Shelly Lancaster,
Asst. Professor,
University of Wisconsin,
Oshkosh, USA.

Prof. P.V. Ramachandran,
Chairman, Nursing Education,
Sri Ramachandra College of Nursing,
Sri Ramachandra University,
Porur, Chennai.

Prof. Dr. Rajeswari Vaidyanathan
Principal,
Sri Ramachandra College of Nursing
Sri Ramachandra University
Porur, Chennai.

Prof. Dr. C.U.V. Velmurugendran,
Head of the department,
Department of Neurology,
Sri Ramachandra Medical College,
Sri Ramachandra University,
Porur, Chennai – 600 116.

Prof. Dr. V. Shankar,
Professor of Neurology,
Sri Ramachandra Medical College,
Sri Ramachandra University,
Porur, Chennai – 600 116.

Dr. V. Natarajan,
Retd. Professor of Neurology,
Government General Hospital,
Chennai.
APPENDIX J
TOOLS
SECTION A
(Patient - Demographic Variables)

1. Sample/IP NO. : 
2. Name : 
3. Age in years
   a. 31-40
   b. 41-50
   c. 51-60
4. Gender : Male/Female
5. Address : 
6. Diagnosis : _______________.
7. Educational status
   a. Primary
   b. Secondary
   c. Higher secondary
   d. collegiate
   e. No formal education
8. Occupational status:
   a. Self employed
   b. Government/private employee
   c. House wife
   d. Retired
9. Marital status
   a. Married
   b. Unmarried
   c. Separated
   d. Widow
10. Residence
    a. Urban
    b. Rural
    c. Sub urban
11. Total family income
    a. < Rs.6000
    b. 6001 - 8000Rs
    c. 8001 - 10,000Rs
    d. >10,001Rs
12. Type of family
    a. Joint family
    b. Nuclear family
SECTION A  
Part B  

PATIENT - CLINICAL VARIABLES  

13. **Stroke risk factor**  

<table>
<thead>
<tr>
<th>S.No</th>
<th>Risk factor</th>
<th>YES</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High blood pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>High cholesterol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Current smoker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>History of having a heart attack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Previous CABG/PTCA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Irregular heartbeat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Ex- smoker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Family history of stroke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Family history of acute coronary syndrome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Family history of diabetes mellitus</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. **Stroke subtype**  
   a. Ischemic  
   b. Haemorrhagic  

15. **Neurological dysfunction**: As per the clinical findings of the patient following stroke ____________.
SECTION A
Part C
Background variables of the caregivers of patient with stroke

1. Sample no : 

2. Caregiver of ____________________ patient

3. Age in years
   a. 30 - 39
   b. 40 - 49
   c. 50 - 59
   d. 60 - 69

4. Gender : Male /Female

5. Educational status
   a. No formal education
   b. Primary
   c. Secondary
   d. Higher secondary
   e. Collegiate

6. Occupational details:
   a. Self employed
   b. Government /private employee
   c. Home maker

7. Kinship with the patient:
   a. Spouse
   b. Daughter
   c. Daughter in law
   d. Son
   e. Other relative

8. Prior experience as caregiver (self-reported)
   a. Yes
   b. No
SECTION B

PART A

STROKE KNOWLEDGE TEST

1. The most common type of stroke occurs when
   (a) The blood supply to the brain is blocked
   (b) You are having a heart attack
   (c) There is bleeding in the brain
   (d) You've had too much sun
   (e) I don't know

2. Which of the following will double your risk of stroke?
   (a) If you are asthmatic
   (b) If you are diabetic
   (c) If you exercise too much
   (d) All of the above
   (e) I don't know

3. Warning signs of stroke are
   (a) Sudden weakness
   (b) Difficulty to speak
   (c) Headache
   (d) All the above

4. Which age group is more at risk of stroke?
   (a) 20-30
   (b) 31-50
   (c) 51-60
   (d) 61+
   (e) I don't know

5. Which drug is used to reduce the risk of stroke?
   (a) Asprin
   (b) Lasix
   (c) Amlong
   (d) Glynase
   (e) I don't know

6. The left hemisphere controls the majority of the function of ______side of the body
   (a) Right
   (b) Left
   (c) Both side
   (d) All of the above
   (e) I don't know
7. For someone who has had a stroke, the main purpose of rehabilitation is to
   (a) Make sure they don’t take drugs
   (b) Keep them in hospital as long as possible
   (c) Improve their level of daily functioning
   (d) Keep their mind off it
   (e) I don’t know

8. Taking aspirin assists in preventing stroke by
   (a) Stopping the formation of blood clots
   (b) Getting rid of a headache
   (c) Settling your stomach
   (d) Relieving stress
   (e) I don’t know

9. You are at greater risk of stroke if
   (a) You are obese
   (b) You exercise regularly
   (c) You give up smoking
   (d) All of the above
   (e) I don't know

10. Once you have suffered a Transient Ischemic Attack (TIA)
    (a) You are less likely to have a major stroke
    (b) You are more likely to have a major stroke
    (c) You are less likely to have a heart attack
    (d) You are more likely to have a heart attack
    (e) I don't know

12. What method of treatment is available for people who have had a stroke?
    (a) Medication
    (b) Rehabilitation
    (c) An operation
    (d) All of the above
    (e) I don't know

13. The most important known risk factor for stroke is
    (a) Genetic
    (b) Heart attack
    (c) High blood pressure
    (d) Old age
    (e) I don't know

14. Approximately how many Indians are affected by stroke every year?
    (a) 105/1,00,000 populations
    (b) 205/1,00,000 populations
    (c) 305/1,00,000 populations
    (d) 405/1,00,000 populations
    (e) I don't know
15. Which of the following is an example of a physical disability caused by stroke
(a) The right arm is paralysed
(b) There are problems with memory
(c) Unable to speak properly
(d) Having trouble doing things in the correct order
(e) I don't know

16. To reduce the risk of stroke you need to
(a) Eat well and exercise regularly
(b) Ensure your blood pressure is not too high
(c) Monitor your cholesterol levels
(d) All of the above
(e) I don't know

17. Rehabilitation can assist someone who has suffered
(a) Loss of movement
(b) Loss of speech or language
(c) Loss of balance
(d) All of the above
(e) I don't know

18. Stroke occur due to
(a) Block in the blood vessel of the brain
(b) Block in the blood vessel of the kidney
(c) Block in the blood vessel of the heart
(d) Dyspnea
(e) I don’t know

19. Golden hours of stroke is_______.
(a) 5hrs
(b) 4 hrs
(c) 3hrs
(d) 2hrs
(e) I don’t know

20. If you are taking anticoagulant you must look for signs of
(a) Bleeding    (b) Renal failure
(c) Liver failure (d) Heart failure
(e) I don’t know
SECTION B
PART B
Barthel Index

Feeding
0 = Unable
5 = Needs help cutting, spreading butter, etc., or requires modified diet
10 = Independent
0 5 10

Bathing
0 = Dependent
5 = Independent (or in shower)
0 5

Grooming
0 = Needs to help with personal care
5 = Independent face/hair/teeth/shaving (implements provided)
0 5

Dressing
0 = Dependent
5 = Needs help but can do about half unaided
10 = Independent (including buttons, zips, laces, etc.)
0 5 10

Bowels
0 = Incontinent (or needs to be given enemas)
5 = Occasional accident
10 = Continent
0 5 10

Bladder
0 = Incontinent, or catheterized and unable to manage alone
5 = Occasional accident
10 = Continent
0 5 1
Toilet Use
0 = Dependent
5 = Needs some help, but can do something alone
10 = Independent (on and off, dressing, wiping)

Transfers (bed to chair and back)
0 = Unable, no sitting balance
5 = Major help (one or two people, physical), can sit
10 = Minor help (verbal or physical)
15 = Independent

Mobility (on level surfaces)
0 = Immobile or < 50 yards
5 = Wheelchair independent, including corners, > 50 yards
10 = Walks with help of one person (verbal or physical) > 50 yards
15 = Independent (but may use any aid; for example, stick) > 50 yards

Stairs
0 = Unable
5 = Needs help (verbal, physical, carrying aid)
10 = Independent

TOTAL (0 - 100) ________
SECTION B
PART C

Generic quality of life -SF-36v2

This survey asks for your views about your health. This information will help you keep track of how you feel and how well you are able to do your usual activities.

1. **In general, would you say your health is:**

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Very good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. **Compared to one year ago, how would you rate your health in general now?**

<table>
<thead>
<tr>
<th>Much better now than one year ago</th>
<th>Some what better now than one year ago</th>
<th>About the same as one year ago</th>
<th>Somewhat worse now than one year ago</th>
<th>Much worse now than one year ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

3. **The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?**

<table>
<thead>
<tr>
<th></th>
<th>Yes, limited a lot</th>
<th>Yes, limited a little</th>
<th>No, not limited at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Vigorous activities, such as running, lifting heavy objects, participating in strenuous sports</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b</td>
<td>Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c</td>
<td>Lifting or carrying groceries</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d</td>
<td>Climbing several flights of stairs</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e</td>
<td>Climbing one flight of stairs</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f</td>
<td>Bending, kneeling, or stooping</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g</td>
<td>Walking more than a mile</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h</td>
<td>Walking several hundred yards</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>i</td>
<td>Walking one hundred yards</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>j</td>
<td>Bathing or dressing yourself</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
4. **During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of your physical health?**

<table>
<thead>
<tr>
<th>Problem</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cut down on the amount of time you spent on work or other activities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Accomplished less than you would like</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Were limited in the kind of work or other activities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Had difficulty performing the work or other activities (for example, it took extra effort)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

5. **During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?**

<table>
<thead>
<tr>
<th>Problem</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Cut down on the amount of time you spent on work or other activities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Accomplished less than you would like</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Did work or activities less carefully than usual</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

6. **During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?**

<table>
<thead>
<tr>
<th>Extent</th>
<th>Not at all</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

7. **How much bodily pain have you had during the past 4 weeks?**

<table>
<thead>
<tr>
<th>Pain Level</th>
<th>None</th>
<th>Very mild</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
<th>Very severe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
</tbody>
</table>

8. **During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?**
9. These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks...

<table>
<thead>
<tr>
<th>Question</th>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Did you feel full of life?</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>b. Have you been very nervous?</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>c. Have you felt so down in the dumps that nothing could cheer you up?</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>d. Have you felt calm and peaceful?</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>e. Did you have a lot of energy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Have you felt downhearted and depressed?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Did you feel worn out?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Have you been happy?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Did you feel tired?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting relatives, etc.)?

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>Some of the time</th>
<th>A little of the</th>
<th>None of the time</th>
</tr>
</thead>
</table>

11. How TRUE or FALSE is each of the following statements for you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Definitely true</th>
<th>Mostly true</th>
<th>Don't know</th>
<th>Mostly false</th>
<th>Definitely false</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I seem to get sick a little easier than other people</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. I am as healthy as anybody I know</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. I expect my health to get worse</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. My health is excellent</td>
<td>C</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION – B
PART D
Stroke Specific Quality of Life Scale (SSQOL)

Scoring: each item shall be scored with the following key

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>2</td>
<td>Moderately agree</td>
</tr>
<tr>
<td>3</td>
<td>Neither agree nor disagree</td>
</tr>
<tr>
<td>4</td>
<td>Moderately disagree</td>
</tr>
<tr>
<td>5</td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

**Energy**

1. I felt tired most of the time.
2. I had to stop and rest during the day.
3. I was too tired to do what I wanted to do.

**Family Roles**

1. I didn't join in activities just for fun with my family.
2. I felt I was a burden to my family.
3. My physical condition interfered with my personal life.

**Language**

1. Did you have trouble speaking? For example, get stuck, stutter, stammer, or slur your words?
2. Did you have trouble speaking clearly enough to use the telephone?
3. Did other people have trouble in understanding what you said?
4. Did you have trouble finding the word you wanted to say?
5. Did you have to repeat yourself so others could understand you?
Mobility
1. Did you have trouble walking? (If patient can't walk, go to question 4 and score questions 2-3 as 1.)  
2. Did you lose your balance when bending over to or reaching for something?  
3. Did you have trouble climbing stairs?  
4. Did you have to stop and rest more than you would like when walking or using a wheelchair?  
5. Did you have trouble with standing?  
6. Did you have trouble getting out of a chair?

Mood
1. I was discouraged about my future.  
2. I wasn't interested in other people or activities.  
3. I felt withdrawn from other people.  
4. I had little confidence in myself.  
5. I was not interested in food.

Personality
1. I was irritable.  
2. I was inpatient with others.  
3. My personality has changed.

Self Care
1. Did you need help preparing food?  
2. Did you need help eating? For example, cutting food or preparing food?  
3. Did you need help getting dressed? For example, putting on socks or shoes, buttoning buttons, or zipping?  
4. Did you need help taking a bath or a shower?  
5. Did you need help to use the toilet?
Social Roles
1. I didn't go out as often as I would like. ____
2. I did my hobbies and recreation for shorter periods of time than I would like. ____
3. I didn't see as many of my friends as I would like. ____
4. I had sex less often than I would like. ____
5. My physical condition interfered with my social life. ____

Thinking
1. It was hard for me to concentrate. ____
2. I had trouble remembering things. ____
3. I had to write things down to remember them. ____

Upper Extremity Function
1. Did you have trouble writing or typing? ____
2. Did you have trouble putting on socks? ____
3. Did you have trouble buttoning buttons? ____
4. Did you have trouble zipping a zipper? ____
5. Did you have trouble opening a jar? ____

Vision
1. Did you have trouble seeing the television well enough to enjoy a show? ____
2. Did you have trouble reaching things because of poor eyesight? ____
3. Did you have trouble seeing things off to one side? ____

Work / Productivity
1. Did you have trouble doing daily work around the house? ____
2. Did you have trouble finishing jobs that you started? ____
3. Did you have trouble doing the work you used to do? ____

TOTAL SCORE: ___
SECTION B

PART E

Burden Assessment Scale

Rank these statements on how true they are for you as a caregiver, using a scale of 0 to 4 with 0 - Never, 1 - rarely, 2 - sometimes, 3 - frequently and 4 - Nearly Always.

Section 1

___ I don’t have enough time for myself.
___ I am over-taxed by my responsibilities.
___ I have lost control over my life.
___ I am uncertain about what to do for my relative.
___ I should do more to help my relative.
___ I could do a better job caring for my relative.
___ I feel burdened by caring for my relative.
___ Total points for Section 1

Section 2

___ My relative needs help all the time.
___ My relative depends on me to help her complete daily tasks.
___ I fear what may happen to my relative in the future.
___ I fear that will not be enough money to care for my relative.
___ I fear I will not be able to continue to care for my relative.
___ I wish someone else would take over my caregiving responsibilities
___ I feel a sense of strain when I’m with my relative.
___ Total points for Section 2

Section 3

___ I sometimes feel anger toward my relative.
___ I am sometimes embarrassed by my relative.
___ I feel uncomfortable about having friends over.
___ Caring for my loved one has a negative impact on my social life.
___ Caregiving has a negative impact on my relationships with other family & friends
___ Caregiving has affected my health.
___ Being a caregiver impacts my privacy.
___ Total points for Section 3
___ Total points from all 3 Sections
APPENDIX K
TEACHING MODULE

Topic : Stroke Education Programme
Group : Patients with stroke and their caregiver
Place of teaching : Neurology ward
Time : 35 - 45 mts (one session) for three days
Method of teaching : Laptop assisted teaching by Lecture cum discussion
Components :
  Day 1: Basic anatomy and physiology of nervous system and Nature of illness
  Day 2: Management of neurological dysfunction and prevention of complications
  Day 3: Assisting for ADL & ROJM

Aim

Help the patients and their caregivers to gain knowledge on stroke, post stroke management and prevention of complications.
Contributory objectives
The study group dyads will be able to
1. Understand the basic features of brain and its function
2. Give the meaning of stroke
3. List out the modifiable and non-modifiable risk factors of stroke
4. Specify the warning signs of stroke
5. Mention the diagnostic assessment of stroke
6. Describe the medical management of stroke
7. Understand and demonstrate the ROJM on the patient
8. Identify the measures to manage bowel and bladder and bowel problems
9. Enumerate the measure to manage the swallowing problems
10. Identify common side effects of drugs used for stroke and adherence to medications
11. List down the symptoms to post stroke depression
12. Manage the memory problems
13. Recognize various methods to overcome the speech and vision problem
14. Identify and prevent post stroke complications
15. List the coping tips for caregivers of patient with stroke
16. List down the steps to prevent another stroke
<table>
<thead>
<tr>
<th>S. No</th>
<th>Contributory objective</th>
<th>Content</th>
<th>Researcher’s activity</th>
<th>Participant’s activity</th>
</tr>
</thead>
</table>
| 1.    | Understand the basic features of brain and its function | **Anatomy and physiology of Brain:**  
The three main components of the brain—the cerebrum, cerebellum and the brain stem have distinct functions. The cerebrum is the largest and most developmentally advanced part of the human brain. It is responsible for several higher functions including higher intellectual function, speech, emotions, integration of sensory stimuli of all types, initiation of the final common pathways for movements, and fine control of movement.  
The cerebellum, the second largest area, is responsible for maintaining balance and further control of movement and coordination.  
The brainstem is the final pathway between cerebral structures and the spinal cord. It is responsible for a variety of autonomic functions such as control of respiration, heart rate, and blood pressure wakefulness, arousal and attention.  
The cerebrum is divided into a right and a left hemisphere and is composed of pairs of frontal, parietal, temporal and occipital lobes.  
The left hemisphere controls the majority of functions on the right side of the body, while the right hemisphere controls most of functions on the left side of the body the crossing of nerve fibers takes place in the brain stem. Thus the injury to the left cerebral hemisphere produces sensory and motor deficits on the right side, and vice versa.  
**Blood supply to the brain:**  
Any decrease in flow of blood through one of the internal carotid arteries brings about some impairment in the function of the frontal lobes. This impairment may result in numbness, weakness, or paralysis on the side of the body opposite to the obstruction of the artery. | Teaching and discussion | Listening |
| 2.    | Give the meaning of stroke | **Definition and types of stroke:**  
A stroke occurs when a blood vessel in the brain is blocked or bursts. | Explaining | Listening |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Contributory objective</th>
<th>Content</th>
<th>Researcher’s activity</th>
<th>Participant’s activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Without blood and the oxygen it carries, part of the brain starts to die. The part of the body controlled by the damaged area of the brain cannot work properly. A blood vessel carrying blood to the brain is blocked by a blood clot. This is called ischemic stroke. A blood Bessel breaks open, causing blood to leak into the brain, this is a hemorrhagic stroke. Incidence of stroke: Men have more strokes then women.</td>
<td>Explaining</td>
<td>Listening, clarifying</td>
</tr>
<tr>
<td>3.</td>
<td>List out the modifiable and non-modifiable risk factors of stroke</td>
<td><strong>Etiology and risk factors of stroke:</strong> Non modifiable risk factor: Being male High blood pressure, Increase in age, family history of stroke, diabetes mellitus, high cholesterol heart disease. bleeding disorders increase risk of bleeding into the brain. Modifiable risk factors: Drugs like Oral contraceptive pills, Cocaine use, Alcohol abuse, Head injury <strong>Pathophysiology of stroke</strong> A clot may break off from a larger thrombus and be carried to other</td>
<td>Explaining</td>
<td>Listening, clarifying</td>
</tr>
<tr>
<td>S. No</td>
<td>Contributory objective</td>
<td>Content</td>
<td>Researcher’s activity</td>
<td>Participant’s activity</td>
</tr>
<tr>
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<tr>
<td></td>
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<td>places in the blood stream. When the embolus reaches an artery too narrow to pass through and becomes lodged, blood flow distal to the fragment ceases, resulting in infarction of distal brain tissue due to lack of nutrients and oxygen.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 4.    | Specify the warning signs of stroke | **Signs and symptoms:**  
**Warning signs:**  
- Sudden weakness, paralysis or numbness of the face, arm and the leg on one or both sides of the body.  
- Loss of speech or difficulty speaking or understanding speech.  
- Dimness or loss of vision particularly in only one eye.  
- Unexplained dizziness, unsteadiness, falls.  
- Sudden severe headache or loss of consciousness  
- Swallowing difficulties  
- Loss of memory  
- Personality changes  
- Mood changes  
- Uncontrollable eye movements or eyelid drooping | Explaining            | Listening              |
| 5.    | Mention the diagnostic assessment of stroke | **Diagnostic test for stroke:** Seeing a doctor right away is very important. If a stroke is diagnosed quickly within the first 3 hours of when symptoms start, doctors be able to use medications that can lead to a better recovery.  
The test includes  
- CT Scan Brain or MRI,  
- ECG,  
- Echo Cardiogram, | Explaining            | Listening              |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Contributory objective</th>
<th>Content</th>
<th>Researcher’s activity</th>
<th>Participant’s activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Discussing</td>
</tr>
</tbody>
</table>
| 6.    | Describe the medical management of stroke | **Treatment:**  
A stroke is a medical emergency, Physicians have begun to call it a “brain attack” to stress that getting treatment immediately can save lives and reduce disability.  
Treatment varies depending on the severity and cause of the stroke. Treatment should be given within 3 hours immediately after the stroke.  
**Immediate treatment:**  
- Thrombolytic medicines, such as tPA  
- Blood thinners like heparin and coumadin  
- Asprin  
- Pain killer for headache  
- Anti-hypertensives to control blood pressure  
- Intravenous fluid and  
- Ryles tube feeding for swallowing difficult patients  
**Long term treatment:**  
The goal of long term treatment is to recover as much function as possible and prevent future strokes. Depending on the symptoms rehabilitation includes speech therapy, occupational therapy and physical therapy.  
**Complications:**  
- Problems due to loss of mobility  
- Permanent loss of movement or sensation of a part of the body |         |                       |
<table>
<thead>
<tr>
<th>S. No</th>
<th>Contributory objective</th>
<th>Content</th>
<th>Researcher’s activity</th>
<th>Participant’s activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>- Bone fractures&lt;br&gt;- Muscle spasticity&lt;br&gt;- Permanent loss of brain functions&lt;br&gt;- Reduced ability to care for self&lt;br&gt;- Decreased life span&lt;br&gt;- Side effects of medications&lt;br&gt;- Aspiration&lt;br&gt;- Mal nutrition&lt;br&gt;- Falls and injuries&lt;br&gt;- Shoulder pain and dysfunction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Understand and demonstrate the ROJM on the patient</td>
<td><strong>1. Stroke and Exercise:</strong>&lt;br&gt;Comprehensive rehabilitation programme may improve the function of stroke survivors despite age and neurologic deficit, and decrease long term patient care cost. Stroke rehabilitation involves a trans disciplinary, holistic approach that addresses medical, functional and psychosocial issues. <strong>For Caregivers: Regaining Movement after Stroke</strong>&lt;br&gt;After a stroke, a person may have trouble using all or part of the body. Often the arm and leg on one side are weak, numb, or stiff. Improving posture, range of motion, and strength are early goals. Together, the rehab team helps the patient progress from sitting to standing and walking. <strong>Improved Positioning</strong>&lt;br&gt;Proper positioning helps patients to regain lost movement. It also limits future problems. Correct body posture keeps a patient from slumping.</td>
<td>Demonstration and discussion</td>
<td>Return demonstration</td>
</tr>
</tbody>
</table>
Proper positioning of arms and legs is needed, too. This prevents muscles near the joints from tightening. Good body position is vital for patients who have weakness on one side of the body (hemiparesis). Proper positioning is also important for those who have lost awareness of one side of the body (called neglect).

**Working the Muscles**

Getting the patient out of bed is the next step. Physical therapists may start by gently moving the patient's limbs each day. Simple stretches may help relax muscles that tighten or spasm. The patient may be taught how to increase strength and range of motion. Many exercises prepare patients to do tasks. For instance, working to bring a hand to the mouth prepares a patient to use a fork or a toothbrush.

**Passive Arm Range Of Motion**

**Shoulders:**
1. Hold the arm at the elbow and the wrist. Lift the arm straight up toward the ear, keeping the elbow straight.
<table>
<thead>
<tr>
<th>S. No</th>
<th>Contributory objective</th>
<th>Content</th>
<th>Researcher’s activity</th>
<th>Participant’s activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. Hold the arm at the elbow and the wrist. Lift it straight out to the side away from the body. Bring the arm up toward the ear, keeping the elbow straight.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Hold the arm at the elbow and the wrist. Bend the elbow until it is halfway up to the shoulder. Move the hand toward the stomach and then away from the stomach.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>4. Take the arm out to the side, and hold it at the shoulder level. Reach across the body to touch the opposite the shoulder.</td>
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</tr>
<tr>
<td>S. No</td>
<td>Contributory objective</td>
<td>Content</td>
<td>Researcher’s activity</td>
<td>Participant’s activity</td>
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<tr>
<td></td>
<td></td>
<td><strong>Elbow:</strong></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>1. Hold the arm at the elbow and the wrist. Bend the elbow toward the shoulder and then completely straighten the elbow.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>2. Hold the arm above the wrist and at the elbow. Bend the elbow until it is halfway to the shoulder. Turn the forearm until the palm of the hand faces the patient. Then turn the forearm until the back of the hand faces the patient.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td><strong>Wrist:</strong></td>
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<tr>
<td></td>
<td></td>
<td>With the fingers straight, bend the wrist backward and then forward.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hold the arm above the wrist and move the hand side to side. Do not move</td>
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| 8.    | Identify the measures to manage bowel and bladder and bowel problems | **Managing bladder and bowel problems after a stroke**  
Some people who have a stroke suffer loss of bladder control (urinary incontinence) after the stroke. However, this is usually temporary, and it can have many causes, including infection, constipation, and the effects of medicines.  
If you have problems controlling your bladder, your doctor may:  
- Test a urine sample to see if you have an infection.  
- Do tests to see how you urinate, which can help you and your doctor decide what treatment might work best for you.  
- Help you develop a schedule of regular bathroom use that fits your abilities.  
- Suggest that you wear protective clothing or a pad.  
- Prescribe medicines, depending on the cause of your bladder problems.  
Some things you can do to prevent bladder leakage include:  
- Emptying your bladder at regular intervals, including when you first... | Teaching | Listening |
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<td>wake up and at bedtime.</td>
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<td>• Controlling your liquid intake, such as drinking liquids at regular intervals and limiting fluid intake after dinner.</td>
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<td><strong>Urinary retention</strong></td>
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<td>You may have trouble emptying your bladder completely (urinary retention). Urinary retention is common, especially right after a stroke, but it usually improves over time. About half of people who have had a stroke have urinary retention problems for the first 3 days after a stroke. However, the problem usually gets better quickly. Less than one-fourth of people have retention problems 3 weeks after their stroke.</td>
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<td>If you have urinary retention problems, your doctor may:</td>
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<td>• Place a tube (catheter) into your bladder to prevent too much urine from building up. This is used only if absolutely needed. (For more information, see the topic Urinary Incontinence in Men or Urinary Incontinence in Women.)</td>
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<td>• Have you avoid medicines with certain side effects that cause the bladder to retain urine.</td>
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<td>• Prescribe medicines, depending on the cause of your bladder problems.</td>
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<td></td>
<td>• Test a urine sample to see if you have an infection (common with urinary retention problems).</td>
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<td><strong>Constipation</strong></td>
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<td>Stroke by itself does not cause constipation. However, constipation often develops after a stroke because you are not drinking enough liquids, are in bed most of the time, or are taking certain medicines as part of your treatment. If your constipation is severe, stool can become lodged (impacted) in the bowel.</td>
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If you are constipated:
- Drink extra liquids, especially water.
- Set a regular time for using the toilet.
If you continue to have problems with constipation, your doctor may recommend a bulking agent (such as Metamucil), a stool softener, or regular use of a laxative or enema.

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<td>9.</td>
<td>Enumerate the measure to manage the swallowing problems</td>
<td><strong>Managing eating problems after a stroke</strong>&lt;br&gt;It is common to have trouble swallowing, also called dysphagia, after a stroke. You may not be able to feel food on one or both sides of your mouth. You may have problems chewing or producing enough saliva, or you may have other conditions that make eating difficult and increase your risk of choking.&lt;br&gt;&lt;br&gt;<strong>What can you do to manage eating problems?</strong>&lt;br&gt;- Eat foods that are easy to chew, taste, and swallow, and avoid others that are not.&lt;br&gt;- Process foods to make them easier to swallow.&lt;br&gt;- Thicken liquids to make them easier to feel in your mouth and throat.&lt;br&gt;- Eat foods that are not too hot or cold.&lt;br&gt;- Use special devices to help you eat.&lt;br&gt;- Use eating techniques that can help you prevent choking.&lt;br&gt;- Have a temporary or permanent feeding tube&lt;br&gt;- Have a temporary or permanent feeding tube placed through your nose or through your abdomen into the stomach (for severe swallowing problems).&lt;br&gt;&lt;br&gt;<strong>Why is it important to carefully manage eating problems?</strong></td>
<td>Discussing</td>
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People who have trouble eating and swallowing after a stroke are at risk for:
- Not eating enough, this can lead to malnutrition. Lack of proper nutrition can delay recovery and cause other problems, such as losing too much weight.
- Breathing in food or liquids (aspiration). This can lead to infection of the lungs. Although many people who have had a stroke cough or choke when they breathe something into their airway, nearly half may not know that they have breathed something into their lungs.

Managing eating problems:
Prepare foods and liquids that are appetizing and easy to swallow:
- Eat foods that smell good. Foods with a strong aroma and sweet or salty foods stimulate the production of saliva in your mouth. The extra saliva will help you swallow your food.
- Try drinking juice if you have trouble swallowing water. The taste of juice helps you know that liquid is in your mouth, so you are less likely to choke. But do not drink citrus juices, such as orange juice. These juices can be irritating and may have pulp, which may increase your chance of choking.
- Work with your speech therapist to see if eating foods at certain temperatures helps you swallow.
- Avoid sticky foods. Milk and most milk products, peanut butter, syrup, and bananas can be sticky and hard to swallow.
- Avoid very dry foods. Crackers, rice, popcorn, and toast may be difficult to swallow.
- Eat soft foods or finely chopped solid foods. Juice or soups may be added to solid food.
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<td>Thicken liquids with nonfat dry milk powder. Thin liquids may cause choking, because they are harder to feel. Use special devices to help you eat Many people who have had a stroke have weakness on one side. If the hand or arm that you use to feed yourself is weak, you may find it hard to use a knife and fork. If you have problems reaching for food, spilling food, cutting meat, or opening containers, ask your speech therapist, occupational therapist, nurse, or doctor about special items that can make eating easier. Examples include: Large-handled silverware. Suction cups for dishes. Extra-long tongs. Tips to prevent choking while eating When you drink, fill your glass only three-quarters full. Eat small bites of food. If you lack feeling on one side of your mouth, place your food on the other side. Clear your mouth and throat after each bite. Food may lodge in the affected side of your mouth. Remove it with your tongue or fingers. Allow about 30 to 40 minutes to eat so that you will not feel rushed. Also, sit up for 45 to 60 minutes after you finish eating.</td>
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<td>10.</td>
<td>Identify common side effects of drugs used for stroke and adherence to</td>
<td>Adherence to Medications: Safety tips when taking aspirin Follow these safety tips when taking aspirin: Take the medication at the same time each day.</td>
<td>Teaching</td>
<td>Listening, clarifying</td>
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|       | medications            | • Take aspirin with food to prevent irritation of the stomach.  
• Use buffered or enteric-coated aspirin.  
• Check with your doctor before using other nonprescription drugs that contain aspirin.  
• Be on the alert for signs of bleeding, and call your doctor immediately if any signs occur.  
• Let your doctor know if you are taking aspirin and you are planning to have surgery. You may have to stop the aspirin temporarily.  
    If you are taking an anticoagulant, call your doctor immediately if you have signs of bleeding, including:  
    • Blood in urine, or burgundy-colored or tarry stools.  
    • Bleeding from the nose or gums, or spitting up blood.  
    • New or increased vaginal bleeding.  
    • Frequent, severe bruising or tiny red or purple spots on the skin.  
    The immediate-release form is safe for long-term use. However, nicotinic acid has frequent side effects, including:  
    • Sudden blushing or redness of the face (flushing), which is more common with the immediate-release forms of nicotinic acid.  
    • Itching.  
    • Liver problems (hepatotoxicity), especially with the sustained-release form.  
    • High blood sugar (hyperglycemia).  
    • Too much uric acid in the blood (hyperuricemia). Excess uric acid in the blood can lead to gout.  
    • Gastrointestinal problems such as upset stomach, gas, nausea, vomiting, and diarrhea. | | |
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<td>- Dizziness, lightheadedness, or a fast or slow heartbeat. Side effects of ACE inhibitors may include:</td>
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<td>- Dry cough.</td>
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<td>- Rash or itching.</td>
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<td>- Allergy like symptoms.</td>
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<td>- Allergic reaction with generalized swelling (angioedema) or, in rare cases, swelling of the upper airway. Excess potassium in the body (hyperkalemia), especially in people with kidney failure</td>
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<td><strong>Depression after a stroke</strong></td>
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<td>Emotional changes may occur from stroke because of brain injury and loss of function. After a stroke, your moods may go up and down more quickly than before, or you may become depressed. You may suddenly start crying and then quickly stop, or you may start laughing for no reason.</td>
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<td>Soon after the stroke, you may find it difficult to control your emotions. Usually this gets better over time. It is understandable if you feel depressed, sad or frustrated. These feelings are a part of getting used to the changes brought on by the stroke. Emotional reactions and depression are common after a stroke, but they can be treated. Talk to your doctor about being depressed and sad.</td>
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<td><strong>Common Signs of Depression</strong></td>
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<td>- Feeling down most of the time</td>
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<td>- Feeling guilty or helpless</td>
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<td>- Losing pleasure in things you used to enjoy, such as reading, exercise, or social events</td>
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<td>- Sleeping less or more than normal</td>
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### Prevention of complications:

#### 1. Preventing falls after a stroke

Weakness and loss of feeling on the affected side after a stroke increase the possibility of falling. You can take the following precautions to prevent falls:

- Have someone help you when you are getting out of bed or walking.
- Keep your room uncluttered. Your home may need to be evaluated, and you may need to have safety modifications made for your particular needs. This may include handrails, a hospital bed, or a taller toilet seat.
- Take medicine to prevent seizures, if you have had seizures.
- Be extra careful if you take medicine that makes you feel drowsy.

The following are some other tips to help prevent falls:

- Whenever possible, push or roll items. Don't carry them.
- Clean up spills quickly. Even small spills can cause you to fall.
- Lay a rubber floor mat in front of the sink to avoid slipping.
- Wear shoes with nonslip rubber soles and strong, solid, low heels.

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|       |                        | - Having a big rise or fall in appetite or weight  
|       |                        | - Feeling restless or irritable  
|       |                        | - Feeling tired, weak, or low in energy  
|       |                        | **Having trouble focusing, remembering, or making decision**  
|       |                        | **If You Feel Depressed**  
|       |                        | Over time, stress from the event of the stroke should lessen. Yet your life may have changed. Realizing this may cause grief, both for you and your loved one. Contact your doctor if either of you shows signs of depression. Treatment can help you find hope—even when you think nothing can help.  
|       |                        | **Prevention of post stroke complications**  
|       |                        | 11. Understand the prevention of post stroke complications   
|       |                        | **Teaching & discussing**  
|       |                        | **Listening, clarifying**  
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<td>• Remove loose rugs, and make sure all carpets and rugs will not slip. • Do not leave electrical cords where you could trip over them. • If you use a walker or cane, put rubber tips on it. • If you use crutches, clean the bottoms of the crutches regularly with an abrasive pad, such as steel wool. Many falls occur during bathing. To prevent falling in the bathroom: • Have grab bars installed to make getting into and out of the shower or tub easier. • Put nonskid tape on the floor of the tub or shower. A shower is safer than a tub because you are less likely to fall when getting in and out of a shower. • Put a chair in the shower or tub if standing makes you tired. Be sure to put suction cups on the legs so that the chair will not slip. • Get into a tub or shower by putting the weaker leg in first. Get out of a tub or shower with your stronger side first. • Use a long-handled brush or mittens with straps to help with bathing. 2. Preventing injury to affected limbs after a stroke After a stroke, you may not feel temperature, touch, pain, or sharpness on your affected side. You may have: • Feelings of heaviness, numbness, tingling, or prickling or greater sensitivity on the affected side. • No sense of how your muscles and joints are operating together, which may affect your balance. If you cannot feel an object, you may be more likely to hurt yourself. • If you have a tendency to clench your fist on the affected arm, keep your fingernails short and smooth so that you do not cut yourself.</td>
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|       |                        | - If you cannot feel sensations in your feet, cut and file your toenails straight across so that you do not scratch yourself. Soaking your hands and feet may make your nails easier to cut. If you have diabetes, talk with your doctor about the care of your feet. If you cannot feel heat on your affected side, you may be more prone to burns. Tips to prevent burns include the following:  
  - Test the temperature of bath water or dishwater using your unaffected side.  
  - Bathe and do dishes in lukewarm water.  
  - Use pot holders whenever you work near a stove.  
  - Turn pot handles away from you to prevent spills.  
  - Wear nonflammable clothes when you cook, and do not wear clothes with long sleeves or ruffles that could get caught in an appliance.  
If you have poor muscle tone in an arm, you may be at risk for shoulder problems. The weight of an affected arm can cause the shoulder to dislocate (shoulder subluxation). You also may tend not to use the shoulder, which may cause pain and loss of motion (frozen shoulder). A frozen shoulder can be prevented by:  
  - Positioning and supporting your affected arm. For example, wear an arm sling when sitting up or walking.  
  - Maintaining full movement (range of motion) of the affected joints either by moving your arm or having someone move it for you.  
  - Not over exercising your arm. This can cause pain and make exercising more difficult. |
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|       |                        |         |
|       | 3. Preventing pressure sores and stiff joints after a stroke |
|       | If you cannot move an arm or leg after a stroke because of paralysis, you | |</p>
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<td>may lose muscle tone in the limb. Poor muscle tone may lead to swelling in the affected limb.</td>
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<td><strong>Pressure sores</strong></td>
<td>Lying or sitting in one position for a long period of time can cause pressure sores or ulcers. Pressure sores develop when pressure on the skin causes a decrease in the blood supply to the tissue. To prevent pressure sores:</td>
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<td>• Check your skin daily, especially over bony parts such as your elbows, heels, knees, buttocks, and tailbone and on your back along your spine. Pressure sores most often form on those parts of the body.</td>
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<td>• When you bathe, gently clean and thoroughly dry your skin.</td>
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<td>• If you have problems with bladder control, wear small disposable pads that you can change when they become wet.</td>
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<td>• Use small amounts of cornstarch as a body powder to help prevent skin irritation. Don't use talcum powder.</td>
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<td>• Sit on a pillow or foam pad to relieve pressure on your tailbone. Try to avoid sitting or lying in the same position for more than 1 or 2 hours.</td>
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<td>• Use a pillow between your knees to relieve pressure when you are lying on your side.</td>
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<td>• Avoid rubbing your elbows and heels against the bed covers when you change position in bed.</td>
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<td>• Make sure that you are getting good nutrition. If you don't eat well, you are more likely to become injured or take longer to heal.</td>
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| 4.    | **Joint stiffness**    | If the joints of your affected limb are not moved through their full range of motion, they can become stiff to the point that they can no longer be straightened. Here are some tips to prevent stiff joints:  
  - Change your position every 1 to 2 hours during the day.  
  - Position your affected arm or leg to maintain its mobility. For example, put a rolled washcloth in your hand to prevent hand stiffness.  
  - Exercise all your joints at least twice each day.  
  - Do not allow your affected arm or leg to be under your body when you are lying down.  
  - Do not allow your affected arm or leg to fall off the side of your bed or the wheelchair. | | |
| 5.    | **Swelling in an affected limb after a stroke** | Swelling develops when the affected arm or leg cannot move for a long period of time. A large amount of swelling:  
  - Causes decreased blood flow in the limb, which increases your chance of developing skin sores (pressure sores).  
  - Limits movement of the limb, which increases your chance of developing stiffening of the joint (contracture).  
  - Causes pain and discomfort in and around the swollen tissues. Some tips to prevent swelling in your affected arm or leg include the following:  
  - Elevate the affected arm or leg. If your arm hangs down at your side for long periods of time, you will have more swelling in the arm.  
  - If swelling develops, massage your arm or leg and wear elastic stockings or | | |
For Caregivers:
Preparing for Home Care After Stroke
When your loved one returns home, you'll both need time to adjust. You and the patient will have to transfer the skills learned in rehab to a new location. Be patient with your loved one and with yourself. Planning ahead can help long-term recovery go more smoothly.

Planning for Home Care
After leaving the rehab center, most patients need to practice their exercises a few times daily. Others still need ongoing therapy. Some may need nursing care. Talk with your social worker or case manager about ways of meeting your loved one's needs.

Setting up the Bathroom
For your loved one's safety, set up the bathroom with the features shown here.

Setting Up the Home
A few minor changes can make home life easier and safer for your loved one. Try these tips.
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|      |                        | - Turn down the water heater temperature a bit to help avoid burns.  
|      |                        | - Get a cordless or speaker phone. Program emergency numbers and those of family and friends.  
|      |                        | - Light halls and stairways. Keep all walkways free of clutter.  
|      |                        | - Remove any throw rugs. Tape down electrical cords.  |

12. List the coping tips for caregivers of patient with stroke

**For Caregivers: Coping Tips**

Caregivers often feel they must tend to their loved one's needs full time. But burning yourself out doesn't help anyone. You can't take good care of someone else without taking good care of yourself as well. It's not selfish. It's essential. Take a break. Eat right. Get out and exercise. Most of all, accept that you can't do everything yourself.

**Give Yourself a Break**

All of the things you do are not equally important. Set priorities. That way you won't be busy all the time. Look after your health. Go for a walk each chance you get. Take a long bath. Lift your spirits by having lunch with a friend. Or do nothing for an hour. Just nap or relax.

**Accept Help**

Knowing you can count on others can be a relief. Accept help when it's offered. And be willing to ask for help when you need it. Those who care about you really do want to help.

**If You Feel Depressed**

Over time, stress from the event of the stroke should lessen. Yet your life may have changed. Realizing this may cause grief, both for you and your loved one. Contact your doctor if either of you shows signs of depression. Treatment can help you find hope—even when you think nothing can help.

**Concerns of the Caregiver**

Taking care of a loved one who has had a stroke can be difficult for many...
reasons. You may be afraid that your loved one will have another stroke or will not be able to accept or overcome disabilities. You may worry that you are not prepared to care for someone who has just had a stroke, or you may have your own health concerns that make it difficult for you to care for another person. You may also become depressed over losing the lifestyle that you previously enjoyed with your loved one. And you may worry about the costs of rehabilitation and a loss of income.

Here are ways that you can help with your loved one's recovery:

- Give support and encouragement for participation in the rehab program.
- Visit and talk with your loved one often. Play cards together or watch TV. Try to keep in touch with your loved one's friends as much as possible, and encourage them to visit.
- Participate in educational programs and attend rehab sessions as much as possible.
- Help your loved one learn and practice new skills.
- Find out what your loved one can do independently or needs help with. Avoid doing things for your loved one that he or she is able to do without help.

You will also need to take care of your own well-being.

- Eat well, get enough rest, and take time to do things that you enjoy. Get out of the house as much as possible.
- Make sure that you do not ignore your own health while you are caring for your loved one. Do not try to do everything yourself. Keep up with your own doctor visits and make sure to take your own medicines regularly. Ask other family members to help. Find out if you qualify for adult day care or for home health care visits to help
with rehab.

- Locate a support group to attend. You can find them through local chapters of the American Stroke Association (a division of the American Heart Association) or the National Stroke Association. Also, check with the rehab team for recommendations. They may be able to offer advice about insurance coverage as well.
- Schedule time for yourself. Get out of the house and do things that you enjoy, run errands, or go shopping.

**To help to prevent stroke:**

- Get screened for high blood pressure at least every 2 years especially if you have a family history of high blood pressure.
- Have your cholesterol checked.
- If you have high blood pressure, diabetes, high cholesterol and heart disease make sure you follow your doctors treatment recommendations.
- Follow a low fat diet.
- Quit smoking.
- Exercise regularly 30 minutes a day if you are not overweight; 60 - 90 mts a day if you are overweight.
- Do not drink alcohol.

### Conclusion

Control of risk factors of stroke will help the patient to prevent further stroke and prevent other complications. Adherence to Stroke Education Programme improves the functional ability of the patient and promotes quality of life following stroke and thereby reduce the burden among caregivers of patients with stroke.
LIFE AFTER STROKE

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Life After Stroke

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As a part of
Thesis submitted to
Sri Ramachandra University
(Estd. U/S 3 of the UGC Act, 1956)
Porur, Chennai -600 116
AIM

This booklet is prepared to enhance the physical, psychological and social functioning of people with stroke to lead life with confidence through practice of stroke education program.

This module is designed for the study group dyads who participated in research. This module is given for the purpose of reinforcement for the patients and their caregiver participated in stroke education programme.

This booklet is prepared for giving information on stroke and home care management to minimize the risk of further stroke events and to improve the quality of life.
PREFACE

A stroke occurs when a blood vessel in the brain is blocked or bursts. Without blood and the oxygen it carries, part of the brain starts to die. The part of the body controlled by the damaged area of the brain cannot work properly.

The goal of stroke education programs is to maximise recovery and help the patient return to maximum independence.

This booklet has been designed to enhance practice of various components of stroke education programs both in the hospital and in the home. They are information on disease condition, medications, smoking cessation, managing eating problems, bowel and bladder problems, memory problems, speech and vision problems, prevention of complications—pressure sore, injury to affected limbs, falls prevention, swelling of affected limbs and tips for caregivers.
ABOUT THE AUTHOR

Mrs. N. Bamini Devi is working as reader in Sri Ramachandra Faculty of Nursing, Sri Ramachandra University, Porur, Chennai - 600 116. She is pursuing Ph.D. (Doctor of philosophy in Faculty of Nursing) at Sri Ramachandra University, Porur, Chennai - 600 116 as a part time scholar. She is specialized in Medical Surgical Nursing. Her research work is on "Effectiveness of Comprehensive Stroke Education Program on knowledge and quality of life among patients with stroke and knowledge and burden among caregivers at neurology ward, Sri Ramachandra medical centre, Porur, Chennai."
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What is stroke?

A stroke is a brain attack. It happens when the blood supply to a part of the brain is cut off by: a blockage - called an ischemic stroke; or a bleed - called hemorrhagic stroke.

Incidence:

✓ Prevalence rate : 203/1,00,000 population (2001)
✓ Male to female ratio : 1 : 7
✓ In India (2007):
  o Prevalence rate : 1.54/1000 population
  o Death rate : 0.6/1000 population
✓ Worldwide the prevalence rate vary from 500 – 800 per 1,00,000 population.
✓ 10-15% of stroke have occurred in < 40 years population in India.

Non modifiable risk factor

❖ Being male
❖ High blood pressure
❖ Increase in age
❖ Family history of stroke
diabetes mellitus
high cholesterol
Heart disease.
bleeding disorders increase risk of bleeding into the brain.

Modifiable risk factor
Drugs like Oral contraceptive pills
Cocaine use
Alcohol abuse
Head injury

Warning signs
- Sudden weakness or loss of movement in face, arm or legs, especially only one side of the body.
- Sudden vision changes
- Sudden trouble speaking
- Sudden confusion or trouble in understanding simple sentences.
- Sudden problems with walking or balance
  Sudden severe headache

Golden Hour: 60 minutes to 3 hours
"TIME LOST BRAIN LOST"

How the stroke is diagnosed?
- CT Scan Brain or MRI
- ECG
- Echo Cardiogram
- Carotid Doppler
- Cerebral angiogram
**Problems associated with stroke**
- Musculoskeletal problems i.e. Contractures and joint pain
- Paralysis
- Communication Problems
- Swallowing difficulties
- Urinary Incontinence
- Mental & Emotional Problems
- Fatigue

**II. Medications**

<table>
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<tr>
<td>1</td>
<td>T. Ecosprin</td>
<td>Prevent platelets from sticking together</td>
<td>✦ Stop drug 5-7 days before surgery &lt;br&gt; ✦ Take low salt diet &lt;br&gt; ✦ Take the drug after food</td>
</tr>
<tr>
<td>2</td>
<td>T. Clopilet</td>
<td>Inhibit platelet aggregation</td>
<td>✦ Watch for bleeding</td>
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<tr>
<td>3</td>
<td>T. Amlong</td>
<td>Decreases the blood pressure</td>
<td>✦ Monitor the BP &lt;br&gt; ✦ Headache and dizziness</td>
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<td>4</td>
<td>T. Atorva</td>
<td>Decreases the cholesterol level (LDL, VLDL)</td>
<td>✦ Headache &lt;br&gt; ✦ follow low cholesterol diet</td>
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Other medications: Used to treat depression and pain also may be prescribed after a stroke

**III. EXERCISE (ROJM)**
1. Hold the arm at the elbow and the wrist. Lift the arm straight up toward the ear, keeping the elbow straight.
2. Hold the arm at the elbow and the wrist. Lift it straight out to the side away from the body. Bring the arm up toward the ear, keeping the elbow straight.

3. Hold the arm at the elbow and the wrist. Bend the elbow until it is halfway up to the shoulder. Move the hand toward the stomach and then away from the stomach.

4. Take the arm out to the side, and hold it at the shoulder level. Reach across the body to touch the opposite the shoulder.

**Elbow:**

Hold the arm at the elbow and the wrist. Bend the elbow toward the shoulder and then completely straighten the elbow.

2. Hold the arm above the wrist and at the elbow. Bend the elbow until it is halfway to the shoulder. Turn the forearm until the palm of the hand faces the patient. Then turn the forearm until the back of the hand faces the patient.
Wrist:
With the fingers straight, bend the wrist backward and then forward.

Hold the arm above the wrist and move the hand side to side.
Do not move the forearm

Practical tips:
• Align your loved one's head, shoulders, and hips.
• Support a limp arm, or gently straighten curling fingers.
• Keep the person's feet flat on the floor or on a footrest.
• Approach from the patient's good side when talking and handling your loved one items.

IV. Tips for safe swallowing

❖ Make mealtimes quiet and relaxed – don’t rush.
❖ Have small, frequent meals.
❖ Only take a teaspoon at a time and make sure you have swallowed it before having any more,
❖ Don’t mix food and drink in the same mouthful.
❖ Don’t try to talk when you are eating.
❖ Sit upright for half an hour after each meal.
V.A. Managing urinary incontinence

✓ Empty your bladder at regular intervals.
✓ Controlling your liquid intake, such as drinking liquids at regular intervals and limiting fluid intake after dinner.
✓ Practicing of pelvic floor exercise

B. Prevention of constipation

✓ Drink extra liquids, especially water.
✓ Set a regular time for using the toilet.

VI. Managing memory problems

1. Break tasks down into simple steps.
2. Try to keep to a routine as far as possible, doing certain tasks at set times of the day or on set days of the week.
3. Use prompts to jog your memory. For example, leave letters that need posting beside the front door so you see them when you go out.
4. Keep a page-a-day diary or calendar and note the time of even the smallest task, for example when you turn on the oven, feed the cat, or phone someone.
5. Try to make a habit of always putting things away in the same place.
6. Label objects like cupboards and jars, to remind yourself.
7. Wear your glasses on a chain around your neck.
8. Programme useful telephone numbers into your phone or leave them nearby where you can easily find them.
9. Use repetition to help remember things, for example if you meet a new person, repeat their name to yourself several times.
10. Pillbox with separated compartments for each day.
11. Arrange to have a newspaper delivered daily to help remember which day it is.
12. Set up direct debits for bills to avoid forgetting to pay them.
13. Put your name on your things in case you accidentally leave them somewhere.
14. Use labels with the date that you open food if you are storing for future.

VII. Managing vision problem
✓ Double vision – special glasses to treat the patients
✓ Visual neglect – Must work with occupational therapist

VIII. Managing speech problem
❖ Meet speech and language specialist with the help of consultants

IX. Prevention of complications:
A. Prevention of fall
❖ Have someone help you when you are getting out of bed or walking.
❖ Keep your room uncluttered.
❖ Be extra careful if you take medicine that makes you feel drowsy.
❖ Whenever possible, push or roll items. Don't carry them.
❖ Clean up spills quickly. Even small spills can cause you to fall.
❖ Do not leave electrical cords where you could trip over them.
❖ If you use a walker or cane, put rubber tips on it
B. Prevention of injury to the affected limbs
- Test the temperature of bath water or dishwasher using your unaffected side.
- Bathe and do dishes in lukewarm water.
- Use pot holders whenever you work near a stove.
- Turn pot handles away from you to prevent spills.
- Wear nonflammable clothes when you cook, and do not wear clothes with long sleeves that could get caught in an appliance.

C. Prevention of pressure sore
- Check your skin daily.
- When you bathe, gently clean and thoroughly dry your skin.
- If you have problems with bladder control, wear small disposable pads that you can change when they become wet.
- Sit on a pillow or foam pad to relieve pressure on your tailbone. Try to avoid sitting or lying in the same position for more than 1 or 2 hours.
- Use a pillow between your knees to relieve pressure when you are lying on your side.
- Avoid rubbing your elbows and heels against the bed covers when you change position in bed.
Lying on the stroke side

Positioning the arms in prone position

Position the arms in the way most comfortable for the patient.

D. Prevention of joint stiffness:
- Change your position every 1 to 2 hours during the day.
- Position your affected arm or leg to maintain its mobility.
- Exercise all your joints at least twice each day.
- Do not allow your affected arm or leg to be under your body when you are lying down.
- Do not allow your affected arm or leg to fall off the side of your bed or the wheelchair.

E. Prevention of swelling in the affected limbs
- Swelling develops when the affected arm or leg cannot move for a long period of time.
- Elevate the affected arm or leg. If your arm hangs down at your
side for long periods of time, you will have more swelling in the arm.
- If swelling develops, massage your arm or leg and wear elastic stockings or gloves

X. **Tips for the caregiver**
- Be patient. Rehabilitation is a slow and often frustrating process
- Be positive. Constant encouragement and praise are needed to keep up everyone's spirits.
- Make time for yourself to do exercise and spend time with your friends
- Fix the daily routines
- Get the right balance between helping and encouraging the person to gain independence and confidence by doing things for themselves.

XI. **Ten steps to prevent stroke**
1. Eat a healthy diet. Following a heart healthy diet can greatly reduce your risk of stroke.
2. Reduce your blood pressure
3. Prevent diabetes. Since diabetes and high blood sugar raise your chances of having a stroke, use the glycemic index guidelines to help you manage blood sugar levels.
4. Don't smoke. And, if you do, quit as soon as possible.
5. Manage your triglycerides. Elevated triglycerides raise your risk of stroke.
6. Keep your cholesterol low. High cholesterol can increase your odds of having a stroke.
7. Maintain a healthy weight. Being overweight also raises your risk.
8. Limit alcohol. Have no more than one drink a day.
10. Exercise daily. Just 30 minutes a day of moderate exercise helps you prevent diabetes and reduce your blood pressure, cholesterol, triglycerides, stress and weight. Wow!

Conclusion

I hope this booklet helped you to understand the importance of post-stroke management. Effective utilization of CSEP in your life ensures functional independence and to improve quality of life.

If you have symptoms of stroke
Contact: 044-2476 8402

Any queries contact:
N. BAMINI DEVI
Faculties of Nursing, SRU
Mobile: 98400 79900
குறிப்பிட்டுள்ளே

இந்த குறிப்பிட்டுள்ளே நவாம் பக்த சுல்தான் போதித்துடன் முக்கியமானது குறிப்பிட்டுள்ளே நவாம் பக்த சுல்தான் போதித்துடன் முக்கியமானது குறிப்பிட்டுள்ளே. இந்த குறிப்பிட்டுள்ளே நவாம் பக்த சுல்தான் போதித்துடன் முக்கியமானது குறிப்பிட்டுள்ளே. 

முன்னையுள்ள விழா வெள்ளை நூற்றவக்காலங்களில் சடக்காய உள்ள தரக்கத்தில் சடக்காய உள்ள தரக்கத்தில். முன்னையுள்ள விழா வெள்ளை நூற்றவக்காலங்களில் சடக்காய உள்ள தரக்கத்தில் சடக்காய உள்ள தரக்கத்தில். முன்னையுள்ள விழா வெள்ளை நூற்றவக்காலங்களில் சடக்காய உள்ள தரக்கத்தில் சடக்காய உள்ள தரக்கத்தில்.

இதுவிட காலம் நவாம் பக்தவேளா பன்னாட்டு நவாம் பக்தவேளா பன்னாட்டு நவாம் பக்தவேளா பன்னாட்டு நவாம் பக்தவேளா.
புராட்டல்

புராட்டலில் செய்து குறுக்கண புராட்டர் அன்னைக்கு அண்டு பொறுத்து குற்றம் நீர்வாக நூற்றண்டு.

புராட்டல் மகளின் பயிரில் செய்து நாணவில் குறுக்கண குற்றம் ஏற்பட்டது. பெண்கள் நேர்முறையில் பொறுத்து குற்றம் நீர்வாக நூற்றண்டு.

புராட்டல் புராட்டருடைய பயிரில் செய்து நாணவில் குறுக்கண குற்றம் ஏற்பட்டது. பெண்கள் நேர்முறையில் பொறுத்து குற்றம் நீர்வாக நூற்றண்டு.

திறமையல் புராட்டல் புராட்டருடைய பயிரில் செய்து நாணவில் குறுக்கண குற்றம் ஏற்பட்டது. பெண்கள் நேர்முறையில் பொறுத்து குற்றம் நீர்வாக நூற்றண்டு.

திறமையல் புராட்டல் செய்யும் பள்ளியில், பத்து வருடங்கள், எளிய வயதான குழந்தைகளுடன், சித்தம்பிடுவது, மகளாக குடும்பத்தின், வருகையில் பாதச்சாரம் நிற்பட்டுதல்கள், அன்னை சிறிய குழந்தையுடன், பாரிக்கிறார் புராட்டர் குழந்தை நூற்றண்டு, தரும் நூற்றனூற்றம் தரும், பாரிக்கிறார் புராட்டர் குழந்தை நூற்றண்டு ஆகச் செய்யும் செய்திகள் செய்யும் குழந்தை அண்டு நூற்றண்டு.
அறுநாற்கி பெருநோலியா

திருமலை. மா. பாலமுரை தேதி அமர்கம் பறு
நாற்கி பெருநோலியா செலவியுள்ள கட்சியிலும், பறு நாற்கி பெருநோலியா பலையில் குறுக்கில் பார்க்கும் விளக்கம் - 600 116.

நாவோர் பெருநோலியாக அமைக்கப்பட்டுள்ளது.

அவனர் தலை பலகை பற்றிய செலவியுள்ளது - பறு நாற்கி பெருநோலியா பலையில் குறுக்கில் பட்டியு வரும் ஆறாற்கி பெருநோலிய வருமாறு வயர் கொடுக்கியிருந்து உருவாக்கியதாகும்.

மேற்குத்துடன் அவனர் செலவியுள்ளது, நன்கு நோக்காது பல பொருட்களை உருதிப்பதாக நாற்கில் பெருநோலியா அன் பதிவு மற்றும் பாதுகாப்பு முறையை நான்கு நோக்காது பல பொருட்களை உருதிப்பதாக நாற்கில் பெருநோலியா அன் பதிவு மற்றும் பாதுகாப்பு முறையை நான்கு நோக்காது பல

நாற்கி பெருநோலியா உருவாக்கியதாகும்.
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</table>
1. புனிதார்த்திகை பிளை நெய்ச்சுணி

புனிதார்த்திகை பிளை நெய்ச்சுணியின் நூற்றுக்கணக்கான குறுக்குப்பாட்டில் (அ) தம்பம்பல்சோசா நூற்றின் முன்முறையான காலத்தில் 2 புறாப்பருவில் குறிப்பிட்டேன் நீதான. போற்றாகநரும் பண்டிகையில், உயிர் தோன்றும் திறன், முற்றம் போற்றாகநரும் பண்டிகையில் புனிதார்த்திகையின் குறிப்பிட்டேன் என்று வழங்குகிறார் 2 புறாப்பருவின் குறிப்பிட்டேன் வெளியே வெளியே நோக்குகிறது.

புனிதார்த்திகையின் புலவர்:

- புனிதார்த்திகையின் நூற்றுக்கணக்கான குறுக்குப்பாட்டின் வெளி (2001)
- புனிதார்த்திகையின் நூற்றின் நூற்றுக்கணக்கான குறுக்குப்பாட்டின் வெளி (2007)
- புனிதார்த்திகையின் நூற்றுக்கணக்கான தனித்துவம்: 1:54/1000 மக்கள் வெளியே வெளியே
- புனிதார்த்திகையின் நூற்றுக்கணக்கான தனித்துவம்: 0.6/1000 மக்கள் வெளியே வெளியே
- 500 - 800/ மக்கள் வெளியே வெளியே தனித்துவமே என்று குறிப்பிட்டேன்.
- 10-15% புனிதார்த்திகையின் 40 ஆண்டின் பின் புனிதார்த்திகையின் தனித்துவமானது.
அப்பதிகாரங்கள்:

- கிருட்ட பிப்பி எழுத்தாக அப்பதிகாரி:
  - முனை விளை
  - கிருட்டங்களைப் பிப்பி செய்யும்
  - மட்டு வருவது
  - போக்கு குறுக்கு முறை
  - காத்து என்பது
  - வெளியான விளை
  - பில்லம் விளை
  - நீண்டு கையெடுப்பிற்கு வெளியான விளை
  - உண்ணு எளியான விளை

அப்பதிகாரிகள்:

- மீனான்மு முண்டி, தக (அ) காண்டல் பற்றியது
  - மீனான்மு பற்றிய விளை
  - மீனான்மு பற்றிய விளை
  - மீனான்மு பற்றிய விளை
  - மீனான்மு பற்றிய விளை
  - மீனான்மு பற்றிய விளை

மேம்பாட்டு: 60 முறையிலான தக நூற்றை அடுத்து
"அப்பதிகாரி பிப்பியாக விளை"
சுருக்காமல் பக்கமுக்கு கல்லறிவு:

அறப்ப துளையத் தோற்றமும் வரிகாலம் அதிகமுறு அமைவில். பக்கமுக்கு அதிகமாக அடிக்க 3 மணி நேரக் காலை முதுகாலம் அவசியமாக தேட வேண்டுமிட்டின் வளைக்கு விளக்கமாக விளக்கம்.

- CT வருகான் தேவா /MRI- கார்ச அதிகப்படும்
- கத்தைழ்
- நார்க்கின் தன்னை செய்ய தன்னைக்கு
- மூத்தம் பேராக பெய்யா.
- முன்னொளி கொதுக்குப் பொருளில்தல்

பக்கமுக்கு விளக்கப்படுபவை பிள்ளைக் கருத்தல்:

- துளைய தாண்டவம் (துளைவாளியின் - வீட்டு வளி மாதம்
- துளைய வெப்பகாளிகள்
- பச்சான்று
- பச்சான்று பிள்ளைக் கருத்தல்
- பிள்ளையக பதிலும் பிள்ளைக் கருத்தல்
- பல்கலை பதிலும் பிள்ளைக் கருத்தல்

II. மூலிகைகள்

<table>
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<th>மூலிகைகள்</th>
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<th>பாதகம் 2 லகுதிணம்</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. T. Ecosprin</td>
<td>வீதியாக அமுறையானவடை வருகான் கல்லறிவு</td>
<td>அதிகம் தீர்த்தக்கள் 5-7 வருகான் குறுக்கு மாதிரியின் குறுக்குப் பல்கலை பதிலும் பிள்ளையக பாதகம்</td>
</tr>
<tr>
<td>எண்</td>
<td>பெயர்</td>
<td>பிறப்புரை</td>
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<tr>
<td>2.</td>
<td>T. Clopilet</td>
<td>நீங்க 2 ஆம் அண்மையான 2 ஆம் செய்தி மூலம்</td>
</tr>
<tr>
<td>3.</td>
<td>T. Amlong</td>
<td>நீங்க வருடாமையில் கை விளக்கினப்</td>
</tr>
<tr>
<td>4.</td>
<td>T. Atorva</td>
<td>நீங்க வருடாமையில் கை விளக்கினப்</td>
</tr>
</tbody>
</table>

II இணைப்புகள்

![Diagram of medical procedures](image-url)
III. 2 குழுவானது தொடர்ந்துக்குறி நடந்து சிறப்பு:

- குடியுரிமை, முடிவு, நல்லோருட்படுத்தும் குழுக்கள் ஒன்றிலே ஒன்றிலே பார்வைக்குறி பார்வைக்குறி.
- குடியுரிமை 2 குழுவானது தொடர்ந்து குழுவானது அன்று
  முடிவு குறிப்பிட்டு பதிவு செய்யப்பட்டுள்ளது.
- நல்லோருட்படுத்தும் அனுக்கை நல்லோருட்படுத்தும் 2 அனுட்பன
  செய்யப்பட்டுள்ளது.
- குடியுரிமைக்குறி (அ) குழுவானது 2 அனுட்பன
  செய்யப்பட்டுள்ளது அனுக்கை (அ) வாக்கு செய்யப்பட்டுள்ளது.
- குடியுரிமைக்குறி (ஆ) 2 அனுட்பன
  செய்யப்பட்டுள்ளது வாக்கு (ஆ) வாக்கு செய்யப்பட்டுள்ளது.
- குடியுரிமைக்குறி (இ) 2 அனுட்பன
  செய்யப்பட்டுள்ளது வாக்கு (இ) வாக்கு செய்யப்பட்டுள்ளது.
- புராணங்கள் விளையாடியவர் குழுவானது
  புராணங்கள் விளையாடியவர் குழுவானது 2 சான்
  குழுவானது. நெறுகார், அழுத்த புராணங்கள் புராணங்களா
  குழுவானது வாக்கு. குழுவானது விளையாடியவர் 2 சான்
  புராணங்களா குழுவானது வாக்கு குழுவானது.
- பொருள் விளையாடியவர் குழுவானது 2 சான்
  வார்த்தை விளையாடியவர் குழுவானது 2 சான்
  வார்த்தை விளையாடியவர் குழுவானது.
- பொருள் விளையாடியவர், குழுவானது குழுவானது, பொருள்,
  விளையாடியவர் குழுவானது வார்த்தை விளையாடியவர்
  குழுவானது.
- நல்லோருட்படுத்தும் 2 குழுவானது விளையாடியவர், வார்த்தை விளையாடியவர், குழுவானது விளையாடியவர் 2 சான் குழுவானது.
IV. சிற்றுயர் வழங்க கல்விக் காலமுக்கும்:
- வழங்கப்பட்டு கிளைக்கும் அளவுக்கு பின்வரிசையாக.
- பாதுகாப்புச் சேது (ஒ) செலுத்துப்பெயர் அளிக்கப்பட்டது.
- குறித்து வலுவில் காணப்பட்டது பெயர் மற்றும் பக்திக்குறிக்கையும்.
- 2 நாள் 2 நாள் பிள்ளை நார் புதுக்காலம் புனிதப்பெயர்.

IV. பசுதிப்பிள்ளைகள் புற்றுபெனசு:
- அதில் இடைப்படும்
- சாத்து காலப்பக்தியுடன் வழங்கப்பட்ட வேலென சிற்றுயர். குறித்து வலுவில் பெயர் மற்றும் பக்திக்குறிக்கையும் மேல் இவ்வுடன் புதுக்காலம் (Metamucil) வழங்கப்பட்டு புனிதப்பெயர்

V. கொன்று பார்வைகள் நடப்பத்தில் கிளையும்:
- கொன்று வலியுறும் காலப்பக்திகள் சிற்று கிளைக்கு பின்வரிசையாக.
- கொன்று வலியுறும் ஒன்றும் சுமாரான அளவுக்கு பின்வரிசையாக.
- கொடுக்குவது வருகின்று மலட்டு செயல்வழியே வருகின்றது. சுமாரான இடைக்காலம் காணப்பட்டது பில்லை காலம் மற்றும் செல்வுப் பக்திக்குறிக்கையும் வருகின்றன.
- கொடுக்குவது வருகின்றிய அளவுக்கு
VI. பார்த்த இயற்பியல் திசையை என்று;
   பார்த்த பார்த்த நிற்கும் / நிற்க - கி: பார்த்த ஐன்னும் 2 நிற்கும் அவுத்துவ நிற்கும் கி: கி நிற்கும் அல்ல நிற்கும்.
   பார்த்த 2 நிற்கும் - செய்யத் தரும் திசையை இழுத்து காணும் காணும் போன்று.
VII. அயல்ம கூற்றிகளை செய்து விளக்கமாக்கு

1. பாதகத்திலிருந்து பின் விளக்கமாக்குதல்:
   • பாதகத்திலிருந்து நேரடி கூறுகள் வந்து விளக்கமாக்குதல் அடுத்து வேளாண்மைத் தொடர்களே இருக்கும்.
   • அவர்களிடையே கூறுகள் வந்து விளக்கமாக்குவது, இருந்தவை கூறுகள் அவள்களிடையே ஆதரித்த பாதகத்திலிருந்து வகைத்தரும்.
   • வலம் இளம் சின்னம் காகச் சிறிய பெயர்களூக்கு.
   • விடையை இரும்பு பராட்டித்து அவள் குழுவிலிருந்து விளக்கமாக்கும்.
   • கருத்தை இரும்பு சின்னம் பாதகத்திலிருந்து, நெரெண்ணம் அவள் விளக்கமாக்குவது.
   • முன்னேற்றப்பட்டு புனர் விளக்கமாக்கும் விளக்கமாக்கும்.
   • வழங்குவது விளக்கமாக்குரை நெரெண்ணம் முன்னேற்றப்பட்டு விளக்கமாக்கும்.
   • கருத்தை இரும்பொழுது பாதகத்திலிருந்து பாதகத்திலிருந்து.
   • வகைத்தரும் என்று பாதகத்திலிருந்து வகைத்தரும்.

2. பாதகத்திலிருந்து பாதகத்திலிருந்து வகைத்தரும் வகைத்தரும் பாதகத்திலிருந்து வகைத்தரும்:
   • பாதக பாதகத்திலிருந்து வகைத்தரும் பாதகத்திலிருந்து பாதகத்திலிருந்து வகைத்தரும்.
   • பாதகத்திலிருந்து ஏற்பட்டு முன்னேறுவது, முன்னேறுவது, குழு
     வகைத்தரும் வகைத்தரும் வகைத்தரும் ஏற்பட்டு வகைத்தரும்.
3. அமைப்பு கருப்பு:

- முழு நிலையில் அடக்கம் செய்துபடுத்துவது போதும் நெருக்க அணையை அடக்கம் செய்வது வேண்டும். அனைத்து சுருக்கங்களும் தொடர்கின்றன.
- பால்மை நோக்கும் நோக்கும் பட்டையும் வேறு பட்டையும் போல, வல்லை, அணையும் அவை இணைந்து அணையை மேம்படுத்துவதற்கு பயன்படும்.
- தொடர்வால் பட்டையான பட்டையும் பட்டையும் அல்லது அமைப்பு கருப்பு புற்றுக் கொட்டு 1-2 மணி நேர உடைய அமைப்பு அணையை பயன்படுத்த வேண்டும்.
- பால்மை நோக்கும் நோக்கும் பட்டையும் வேறு பட்டையும் போல மேம்பட்டு அணையை செயல்படுத்த வேண்டும்.
- பால்மை நோக்கும் நோக்கும் பட்டையும் வேறு பட்டையும் போல மேம்பட்டு அணையை செயல்படுத்த வேண்டும். அணையை பயன்படுத்தும் நோக்கும் பட்டையும் வேறு பட்டையும் போல மேம்படுத்துவதற்கு பயன்படும்.
4. கொண்டு பிறப்பு:

♦ வைத்தும் 1-2 மணி தொடரும் உட்கொள்க குறிப்பிட்டு உள்தரையும்.

♦ மாது பலகை பிறிக்கும் பாதிக்கும் சதுரம் உள்ளது. மாதும் மற்றும் மனித உள்ளது கொண்டு விளையாடும் போது ஒளிக்கை. (ந.கா) முப்பெட்டு சிளையான தெளிவில் 2 போன்று உள்ளிட்டு ஐக்கியமைக்கும்.

♦ வைத்தும் 2 மணி அலுவது பல்கிறை உள்ளிட்டு அறிமுகாது.

♦ பாதிக்கும் விளையாடும் பாதிக்கும் சதுர / கருநகரம் 2 முறையான அலப்பில் மண்டலத்து ஐக்கிய காண்டு.

♦ வைத்தும் விளையாடும் பாதிக்கும் சதுர / கருநகரம் பிறிக்கும், சதுர வாரணாசி விளையாடும் பாதிக்குமிடத்துக்கு ஐக்கியமைக்கும்.
5. பாதிக்கப்பட்டு பந்திதற் நிலையை நம்பவேண்டும்
   • நாணயாக நடுத்தர நிலையில் அதிகப் பரிமானப் பாதுகாப்பு.
   • தலை/காலைகளில் அறிமுக குறுக்கு தொடர்பு அதிகாரிகள் என்று பிரச்சினை அதிகாரிகள்.
   • அவியல் அருகாமையை நிர்வாகத்து பங்கொத்து நீந்து நம்பும்.
   • பாதிக்கப்பட்டு தலை / காலை அறிக்கைகள் காட்சிக்கு பிரித்து நிலையை நீந்து நம்பும்.
   • சுருக்கம் 2 தலையை, காலையையும் பந்தித்துதலையை.
IX. மத்திய முதலிய ஒச்சுத்துக்கள்:

- புதுச்சேரி முதலிய ஒச்சுத்துக்கள் கேட்டு விளக்கிய செய்தியால் தந்தியர் பெரும்பாலும் உயர்ந்து விளக்கிய 21 ம் திசம்பரம் உபக்கு விளக்கிய செய்தியால்.
- புதுச்சேரியில் ரோஜ்டு செய்தியால்.
- மாத அதிர்விவசாசு செய்தியால்.
- சாத்தியம் நூற்றாண்டு விளக்கிய செய்தியால், ரோஜ்ட சாத்தியம் அளவை ரோஜ்டியாக மாற்றும் செய்தியால்.
- முன்னேறு 21 தொன்முன்ற விளக்கிய செய்தியால்.
- கைவிடைக்கு வைத்தியப் 21 தொன்முன்ற விளக்கிய செய்தியால்.
- அம்மா 22 ம் தலை கொடுக்கொள்வின் போது 30 முதல் தலைக்கணிப்பில் விளக்கிய 60 - 90 முதல் அம்மா 22 ம் தலை செய்தியான விளக்கிய செய்தியால்.

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