# BMJ Open Effect of home-based interventions on basic activities of daily living for patients who had a stroke: a systematic review with meta-analysis

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To cite: Qin P, Cai C, Chen X, et al. Effect of home-based interventions on basic activities of daily living for patients who had a stroke: a systematic review with meta-analysis. BMJ Open 2022;12:e056045. doi:10.1136/ bmjopen-2021-056045

Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (http://dx.doi.org/10.1136/ bmjopen-2021-056045).

Received 09 August 2021 Accepted 12 July 2022



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### **ABSTRACT**

Objectives To investigate the effectiveness of homebased interventions in improving the ability to do basic activities of daily living in patients who had a stroke. Methods Randomised controlled trials were searched through MEDLINE, Embase and CINAHL from their inception to 31 December 2021. We included studies involving home-based intervention prescribed by professionals and implemented at patients' homes. The characteristics of these studies were collected. Risk of bias of individual study was assessed by Physiotherapy Evidence Database scale. Meta-analyses were performed where studies reported comparable interventions and outcomes.

Results In total, 49 studies were included in the systematic review and 16 studies had sufficient data for meta-analyses. The short-term effect of home-based intervention showed no significant difference when compared with institution-based intervention (standardised mean difference (SMD)=0.24, 95% CI -0.15 to 0.62, I<sup>2</sup>=0%). No significant difference was found between home-based intervention and usual care for long-term effect (SMD=0.02; 95% CI -0.17 to 0.22; I<sup>2</sup>=0%). Homebased rehabilitation combined with usual care showed a significant short-term effect on the ability to do basic daily activities, compared with usual care alone (SMD=0.55; 95% CI 0.22 to 0.87; p=0.001;  $I^2$ =3%).

Conclusion Home-based rehabilitation with usual care, which varied from no therapy to inpatient or outpatient therapy, may have a short-term effect on the ability to do basic activities of daily living for patients who had a stroke compared with usual care alone. However, the evidence quality is low because of the limited number of studies and participants included in the meta-analysis and the possible publication bias. Future research is needed to investigate the effectiveness of homebased rehabilitation in groups with stratification by stroke severity and time since stroke onset, with elaboration of details of the home-based and the control interventions. Moreover, more high-quality studies are required to prove the cost-effectiveness of newly developed strategies like caregiver-mediated rehabilitation and telerehabilitation.

The primary source of funding The Medical Research Fund of Guangdong Province (No: A2021041).

### STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Investigated the effectiveness of home-based rehabilitation in improving the ability to do basic activities of daily living in patients who had a stroke. compared with institution-based intervention, usual care and no intervention, respectively.
- ⇒ Updated some newly developed home-based treatment strategies such as telerehabilitation and caregiver-mediated intervention, and investigated their effectiveness.
- ⇒ The number of studies included in the individual meta-analysis was limited because of the inadequate data in the individual studies.
- ⇒ The clinical heterogeneity between studies in terms of severity of stroke, onset time of stroke, interventions and manner of delivery also compromised the evidence strength of our meta-analyses.

### INTRODUCTION

Stroke is one of the major causes of death and is a leading cause of adult disability worldwide. About half of patients who had a stroke are left with varying degrees of physical or cognitive impairments.<sup>2</sup> Previous studies have shown that 25%-74% of patients who had a stroke need assistance from caregivers for the activities of daily living,3 and the quality of life of both patients and caregivers is heavily impacted.<sup>4</sup> Although the need for rehabilitation services for the patients who had a stroke after discharge from acute hospitals is widely recognised, outpatient and inpatient rehabilitation are often compromised for reasons such as lack of accessibility, increased costs and poor compliance.<sup>5 6</sup> On the other hand, the ability to perform activities of daily living in an institution-based environment may not be generalised to the home environment, which is the final discharge destination for most patients who had a stroke. Moreover, the motor relearning of patients who had a stroke improves by context-specific training, and training in the patient's own





environment is preferred.<sup>8</sup> Early supported discharge from hospital with subsequent rehabilitation services at home has shown to be more cost-effective than usual care, with a lower caregiver burden and shorter length of stay in hospital.<sup>9</sup> <sup>10</sup> Therefore, a home-based rehabilitation programme could be a viable alternative to institution-based stroke rehabilitation.

A Cochrane review of home-based therapy programmes for upper limb functional recovery following stroke found that there was insufficient good-quality evidence to determine the relative effect of home-based upper limb programmes on performance of basic activities of daily living (BADL), compared with placebo, no intervention or usual care. 11 The limited number of included studies and the heterogeneity in terms of the type of home-based therapy programmes limited the evidence strength. Apart from upper limb function, the ability to perform BADL in patients who had a stroke is influenced by much more factors such as mobility, cognition and communication, <sup>12</sup> environmental limitation and psychological adaptation.<sup>14</sup> Moreover, upper limb function is not linearly related to the actual performance of daily activities, and the improved upper limb motor capacity does not translate into the increased upper limb performance in daily life. 15 Therefore, the effectiveness of home-based intervention including but not limited to upper extremity function training is needed to be investigated.

Another previous review found a significant short-term effect on functional independence in favour of home-based rehabilitation for community-dwelling people who had a stroke. However, the evidence was weak because the control interventions mentioned in the previous review were mixed with usual care, centre-based intervention and no intervention. Moreover, as the development of home-based treatment strategy and also for the purpose of reservation of medical services, novel home-based intervention strategies such as telerehabilitation and caregiver-mediated intervention have emerged nowadays. An updated review is needed to investigate the effectiveness of home-based interventions in improving the ability to perform self-care activities in patients who had a stroke.

The objective of this systematic review was to evaluate the effectiveness of home-based interventions in performance of BADL, when comparing with institution-based intervention, usual care and no intervention, respectively, in patients who had a stroke.

### **METHODS**

The following items were reported according to the Preferred Reporting Items for Systematic reviews and Meta-Analyses.<sup>17</sup>

### **Patient and public involvement**

No patient involved.

### Search strategy

The MEDLINE, Embase and CINAHL databases were searched through PubMed, Embase and EBSCOhost

platforms, respectively, from inception to 31 December 2021. The search strategy is presented in online supplemental appendix 1.

### **Inclusion and exclusion criteria**

We only included participants in home-based intervention groups who were living in their own home. Studies that included participants in home-based intervention groups who were living in care homes and other forms of supported or sheltered accommodation were excluded. We defined the home-based interventions as (1) prescribed by professionals and (2) implemented in the patient's own home. Studies delivered solely in environmental modifications, ergonomic intervention, psychosocial interventions or medication were excluded. The comparison interventions included institution-based intervention, usual care and no intervention. We included studies which measured the ability to do BADL as one of the outcomes. Trials that studied solely instrumental activities of daily living were excluded. We only included peer-reviewed studies in English language. Grey literature like unpublished studies or conference abstracts were excluded.

#### Selection of studies

Two reviewers independently extracted randomised controlled studies from the three databases. The duplicate articles were deleted, and the obviously irrelevant studies were eliminated by screening the titles and abstracts. If any one of the reviewers considered one reference as eligible, the full text was assessed and two reviewers evaluated the study separately based on the inclusion and exclusion criteria. The two reviewers also searched for relevant reviews reported on the similar topic from the three databases. Reference lists of those reviews were examined, and citation searching and full-text assessment were conducted to identify the additional eligible studies. Only the studies identified by both reviewers were included in the review. Any disagreements between the two reviewers were resolved through discussion with the third reviewer.

### **Data extraction and management**

Data were extracted from the included studies and recorded on a data extraction form by one reviewer and checked by another reviewer. The extracted information included the following items: (1) the total number of participants of each group; (2) characteristics of participants such as age, gender, disability level and time elapsed since stroke onset; (3) characteristics of home-based interventions and interventions in the control group, and details of home-based interventions; (4) outcome measures of performance of BADL and the time points of outcome measures; and (5) results of effectiveness.

### **Assessment of methodological quality**

Two reviewers independently assessed the methodological quality of the included studies using the Physiotherapy Evidence Database scale (PEDro scale). <sup>18</sup> The



PEDro scale is an 11-item scale assessing the following items of individual study: (1) specified eligibility criteria and source of participants; (2) random allocation; (3) concealed allocation; (4) similarity at baseline; (5) blindness of participants; (6) blindness of therapists; (7) blindness of assessors; (8) less than 15% dropouts; (9) intention-to-treat analysis; (10) between-group statistical comparisons; and (11) point and variability measures. Each satisfied item contributes 1 point to the total PEDro score, except for item 1 which pertains to external validity. Researchers have suggested that scores of <4 are considered poor quality, 4-5 are considered fair quality, 6-8 are considered good quality and 9-10 are considered excellent quality. 19 20 Any disagreements between the two reviewers were resolved through discussion with the third reviewer.

### **Data analysis**

The Cochrane Collaboration's Review Manager software (V.5.3) was used to carry out all statistical analyses. The overall estimate of the treatment effect was calculated using the means and SDs of outcome scores with continuous data in the home-based intervention group and control group. Short-term effect and long-term effect were analysed by comparing the statistical difference of outcome score between two groups at treatment endpoint and at the last follow-up, respectively. Those studies with no mean or SD of outcome measure reported were excluded from the meta-analysis. For the studies that used the same measurement tool, we calculated a pooled estimate of the mean differences (MDs) with 95% CIs. When different measurement tools were used, we used the standardised MDs (SMDs) instead of MDs.

Statistical heterogeneity was measured using the  $I^2$  statistic.  $I^2 > 50\%$  was considered to indicate substantial heterogeneity, which would result in the use of a random-effects model for the meta-analysis. When  $I^2$  was  $\leq 50\%$ , a fixed-effects model was used. Inverse variance method was used to estimate the treatment effect.

We planned to perform several meta-analyses to evaluate (1) the effectiveness of home-based intervention compared with institution-based intervention at treatment endpoint and follow-up; (2) the effectiveness of home-based intervention compared with usual care at treatment endpoint and follow-up; (3) the effectiveness of home-based intervention combined with usual care compared with usual care at treatment endpoint and follow-up; and (4) the effectiveness of home-based intervention compared with no intervention at treatment endpoint and follow-up.

We planned to perform subgroup analyses to investigate the sources of heterogeneity, according to the (1) level of disability of the patients who had a stroke with stratification of mild, moderate and severe stroke; (2) the onset time of stroke; (3) type of home-based intervention; (4) self-mediated and/or caregiver mediated versus professional mediated.

We also planned to perform a sensitivity analysis to diminish the influence of studies with poor methodological quality on the effect size estimate. The studies with poor PEDro score ( $\leq$ 3) were deleted from the metanalysis. All of the statistical tests were two tailed, and p<0.05 represented statistical significance.

We planned to test for funnel plot asymmetry to assess the publication bias if there were more than 10 studies included in the meta-analysis.<sup>21</sup>

### Assessment of certainty of the evidence

Two reviewers independently assessed the quality of the evidence using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach. Five factors result in rating down the quality of evidence including study limitations, inconsistency of results, indirectness of evidence, imprecision and publication bias. We rated the overall quality of evidence as high, moderate, low or very low for each outcome. We justified all decisions to downgrade the quality of evidence.

### **RESULTS**

### **Study identification**

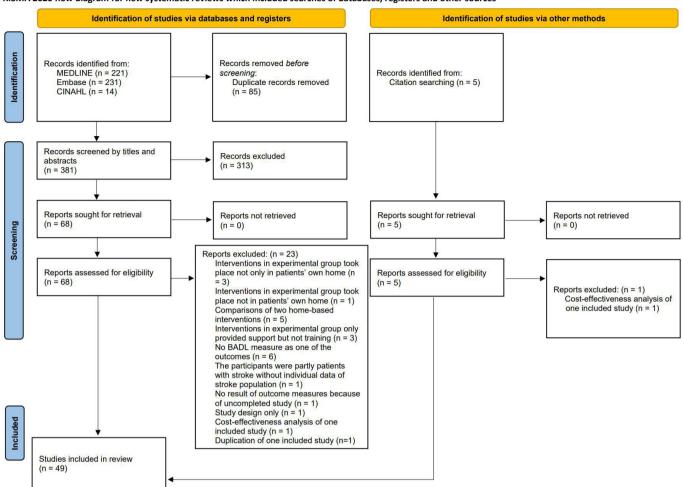
The search of the electronic bibliographical databases identified 466 articles (MEDLINE=221, Embase=231, CINAHL=14). Five additional studies were identified through the reference lists of relevant articles and reviews. In total, 49 studies met the eligibility criteria and were included into this systematic review (figure 1).

### **Study characteristics**

Twenty-one randomised controlled trials compared home-based rehabilitation with institution-based rehabilitation on an inpatient or outpatient basis. 23-43 Fifteen randomised controlled trials compared home-based rehabilitation with usual care, which was provided according to routine practice without the involvement of the research team and might include no therapy, home care, instructions for home rehabilitation, inpatient therapy and outpatient therapy. 32 38 44-56 Five randomised controlled trials evaluated the effect of specific home-based interventions by comparing with blank control or sham control.<sup>57-61</sup> Ten randomised controlled trials compared home-based interventions combined with usual care with usual care alone. 62-71 The main characteristics of the included studies are shown in online supplemental table 1. The summary of details of the home-based intervention in each included study according to the Template for Intervention Description and Replication<sup>72</sup> is shown in online supplemental table 2.

There were various home-based interventions performed in the included studies. Twelve studies did not describe the details of treatment strategy.  $^{28}$   $^{29}$   $^{32}$   $^{33}$   $^{37}$   $^{43}$   $^{48}$   $^{50}$   $^{52}$   $^{56}$   $^{68}$   $^{70}$  Among 37 studies which reported the details of treatment strategy, 19 studies provided physical exercise practice,  $^{23}$   $^{26}$   $^{27}$   $^{31}$   $^{34}$   $^{36}$   $^{45}$   $^{49}$   $^{53}$   $^{57}$   $^{59}$   $^{61}$   $^{63}$   $^{64}$   $^{71}$   $^{20}$  studies provided

PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources



**Figure 1** PRISMA 2020 flow diagram for new systematic reviews which included searches of databases, registers and other sources. Process of study selection. BADL, basic activities of daily living; PRISMA, Preferred Reporting Items for Systematic reviews and Meta-Analyses.

training of daily activities, <sup>23–27 30 36 38 45 46 53–55 58–61 65 66 71</sup> 8 studies provided task/functional-specific training <sup>3539–42516169</sup> and 2 studies provided constraint-induced movement treatment. <sup>44 62</sup> Other treatments like speech and communication therapy, <sup>42</sup> psychosocial intervention, <sup>67</sup> emotion management, <sup>71</sup> electromyography-triggered neuromuscular stimulation, <sup>26 27</sup> environmental modification, <sup>47 64</sup> application of leisure activities, <sup>66 67 71</sup> providing adaptive aids and equipment, <sup>59 66</sup> providing fall prevention strategies <sup>63</sup> and providing splint or orthoses <sup>34</sup> were also used as part of home-based interventions for patients who had a stroke.

The delivery strategy of home-based intervention has transformed in recent years. Before 2009, 24 out of 25 included studies reported that home-based interventions were provided by professionals during home visits. Among 24 studies published from 2009, 11 studies involved self/caregiver-mediated intervention,  $^{23\ 26\ 27\ 31\ 35\ 36\ 44\ 51\ 61\ 62\ 64}$  in which 4 studies provided telerehabilitation supervised by professionals.  $^{26\ 27\ 35\ 64}$ 

### Risk of bias in included studies

The methodological quality of the included studies is presented in table 1. Thirty-three out of the included 49 studies were of good methodological quality (PEDro score=6–8). Twelve studies were of fair quality (PEDro score=4–5) and four were of poor quality (PEDro score=1–3).

# Effectiveness of home-based intervention compared with institution-based intervention

Twenty-one studies investigated the effectiveness of home-based intervention compared with institution-based intervention. Three studies did not specify the between-group statistical comparison. The studies found no significant difference between two groups in the ability to do daily living no matter at treatment endpoints or at follow-ups. The superiority of home-based intervention compared with institution-based intervention, one study showed an opposite result. Seven studies reported improvement in ability to do daily living in both groups. States of home-based intervention compared with institution-based intervention, one study showed an opposite result. Seven studies reported improvement in ability to do daily living in both groups.



Table 1 Physiotherapy Evidence Database scores of included studies

Table 1 Physiotherapy E	Evidence Database scores of included studies  Items											
Studies	1	2	3	4	5	6	7	8	9	10	11	Score (0–10)
Asano et al <sup>23</sup>	√	√					√		√	<b>√</b>	√	5
Baskett et al <sup>24</sup>		√ √	√	√				√	•			7
Björkdahl et al <sup>25</sup>	√	√	√	√			√	√	√		√	7
Chen et al <sup>26</sup>	√	√	√	√			√	√	√		√	8
Chen et al <sup>27</sup>	√	√	√	√			√	√	√	√	√	8
Gladman and Lincoln <sup>28</sup>	√	√		√			√			√	√	5
Gladman et al <sup>29</sup>	√	√	√				√	√		√	√	6
Han et al <sup>30</sup>	√	<b>V</b>		<b>V</b>			√	√	√	<b>√</b>	√	7
Hesse et al <sup>31</sup>	√	<b>V</b>		√			√	√	√	<b>√</b>	√	7
Hofstad et al <sup>32</sup>	√	<b>V</b>	√	√	√		√		√	√	<b>V</b>	8
Kalra et al <sup>33</sup>	√	<b>V</b>	√	√			√	√	√	√	<b>√</b>	8
Özdemir et al <sup>34</sup>	√	√		√				√	√		<b>√</b>	5
Pandian et al <sup>35</sup>	√	√					√					2
Redzuan et al <sup>36</sup>	√	√								V	√	3
Roderick et al <sup>37</sup>	√	√	$\sqrt{}$	√						√	√	5
Taule et al <sup>38</sup>	√	<b>V</b>	√				√			√	√	5
Thorsén et al <sup>39</sup>	√	√	√				√			√	√	5
von Koch et al <sup>40</sup>	√	√	√				√	√		√	√	6
von Koch et al <sup>41</sup>	√	√	√				√	√		√	<b>√</b>	6
Widén Holmqvist et al42	√	<b>V</b>	√				√	√		√	√	6
Young and Forster <sup>43</sup>	V	<b>√</b>		<b>V</b>			<b>√</b>	<b>√</b>		√	$\sqrt{}$	6
Barzel et al <sup>44</sup>	V	<b>V</b>	√				V	<b>√</b>	$\sqrt{}$	<b>√</b>	$\sqrt{}$	8
Chaiyawat and Kulkantrakorn <sup>45</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	7
Chaiyawat et al <sup>46</sup>	√	√	√	√				√	√	√	√	7
Chen et al <sup>47</sup>	V	<b>V</b>		<b>V</b>	√			<b>√</b>	$\sqrt{}$	<b>√</b>	$\sqrt{}$	7
Deng et al <sup>48</sup>	<b>V</b>	√	$\sqrt{}$				√	√	√	$\sqrt{}$	$\sqrt{}$	8
Duncan et al <sup>49</sup>		√	√	√				√	√	√		6
Lincoln et al <sup>50</sup>	$\sqrt{}$						<b>V</b>			√	√	4
Lindley et al <sup>51</sup>		√		√			√	√	√	√	√	7
Mayo et al <sup>52</sup>	V							√		$\sqrt{}$		6
Rasmussen et al <sup>53</sup>	√	√	√	√						V	√	5
Santana et al <sup>54</sup>	√	$\sqrt{}$	√	$\sqrt{}$			√			V	$\sqrt{}$	6
Walker et al <sup>55</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			√	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$	7
Wolfe et al <sup>56</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	5
Azab et al <sup>62</sup>	$\sqrt{}$											1
Batchelor et al <sup>63</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			$\sqrt{}$		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	7
Chumbler et al <sup>64</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			$\sqrt{}$		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	7
Corrand Bayer <sup>65</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						$\sqrt{}$	$\sqrt{}$	5
Goldberg et al <sup>67</sup>	√	√		√								2
Gilbertson et al <sup>66</sup>	√	√	√				√	√	√	<b>V</b>	√	7
Mandigout et al <sup>68</sup>	√	√		√			√		√	V	√	6
Ricauda et al <sup>69</sup>	√	$\sqrt{}$		√			√		√	V	√	6
Rudd et al <sup>70</sup>	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						√		5

Continued

Table 1 Continued												
	Items											
Studies	1	2	3	4	5	6	7	8	9	10	11	Score (0-10)
Wong and Yeung <sup>71</sup>	$\sqrt{}$		$\sqrt{}$				$\sqrt{}$	<b>√</b>	$\sqrt{}$		$\sqrt{}$	8
Koç <sup>57</sup>	$\sqrt{}$	V	V	√						$\sqrt{}$	√	5
Lin et al <sup>58</sup>	$\sqrt{}$	√		√		√	√	√	$\sqrt{}$	$\sqrt{}$	√	8
Wade et al <sup>59</sup>	√	√		V			$\sqrt{}$	$\sqrt{}$			√	6
Walker et al <sup>60</sup>	$\sqrt{}$	√		√			<b>V</b>	√		$\sqrt{}$	√	6
Wang et al <sup>61</sup>	1/	1/					1/	1/	1/	1/	1/	6

Rating items: 1—eligibility criteria and source of participants; 2—random allocation; 3—concealed allocation; 4—baseline comparability; 5—blinded participants; 6—blinded therapists; 7—blind assessors; 8—adequate follow-up; 9—intention-to-treat analysis; 10—between-group comparisons; 11—point estimates and variability. Item 1 evaluates external validity, does not contribute to the total score.

Three studies with adequate data were included in the meta-analysis to evaluate the effect of home-based intervention compared with institution-based intervention. Two studies measured the performance of BADL at treatment endpoint, and one study measured at the follow-up after intervention. One study did the follow-up assessment during the treatment period. For the endpoint analysis, a fixed-effects analysis produced an insignificant result (SMD=0.24; 95% CI=-0.15 to 0.62; n=104; 1²=0%) (figure 2).

At treatment endpoint, very low-quality evidence indicates the uncertainty of the effect of home-based intervention compared with institution-based intervention. The evidence was downgraded one level for publication bias and two levels for imprecision as the sample size is small and the 95% CI estimated includes both null effect and appreciable benefit or harm.

# Effectiveness of home-based intervention compared with usual care

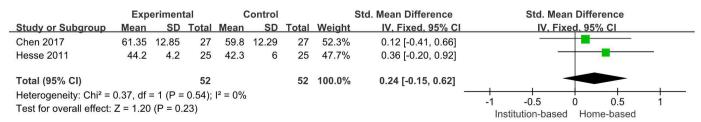
Fifteen studies investigated the effectiveness of home-based intervention compared with usual care. Ten studies found no significant difference between two groups in the ability to do daily living no matter at treatment endpoints or at follow-ups. <sup>32</sup> <sup>38</sup> <sup>44</sup> <sup>49–54</sup> <sup>56</sup> Five studies showed significantly better improvement in the home-based intervention than in the usual care group. <sup>45–48</sup> <sup>55</sup>

Six studies were pooled in the meta-analysis to evaluate the effect of home-based intervention compared with usual care.  $^{44\ 47\ 48\ 51\ 52\ 54}$  Four studies measured the performance of BADL at treatment endpoint.  $^{44\ 47\ 48\ 52}$  For the

endpoint analysis, a random-effects analysis produced an insignificant result with high heterogeneity between studies (SMD=0.62; 95% CI=-0.07 to 1.31; n=475; I²=92%) (figure was eliminated). Three studies measured outcome at the follow-up after intervention. <sup>44</sup> <sup>52</sup> <sup>54</sup> For the follow-up analysis (after intervention), a fixed-effects analysis produced an insignificant result (SMD=0.02.; 95% CI=-0.17 to 0.22; n=399; I²=0%) (figure 3). Three studies measured outcome during the period of treatment. <sup>47</sup> <sup>48</sup> <sup>51</sup> For the follow-up analysis (during the treatment period), a random-effects analysis produced an insignificant result with high heterogeneity between studies (SMD=1.03; 95% CI=-0.21 to 2.27; n=1264; I²=98%) (figure was eliminated).

At treatment endpoint, very low-quality evidence indicates the uncertainty of the effect of home-based intervention compared with usual care. The evidence was downgraded one level for publication bias, one level for inconsistency because of the heterogeneity between results, and one level for imprecision as the 95% CI estimated includes both null effect and appreciable benefit or harm.

At follow-up after intervention, very low-quality evidence indicates the uncertainty of the effect of home-based intervention compared with usual care. The evidence was downgraded one level for publication bias and two levels for imprecision as the sample size is small and the 95% CI estimated includes both null effect and appreciable benefit or harm.



**Figure 2** Forest plot comparing the effectiveness of home-based intervention with institution-based intervention at treatment endpoint.

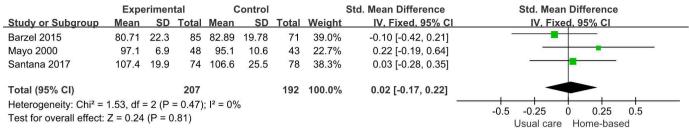


Figure 3 Forest plot comparing the effectiveness of home-based intervention with usual care at the follow-up (after treatment).

At follow-up during the intervention period, very lowquality evidence indicates the uncertainty of the effect of home-based intervention compared with usual care. The evidence was downgraded one level for publication bias, one level for inconsistency because of the heterogeneity between results, and one level for imprecision as the 95% CI estimated includes both null effect and appreciable benefit or harm.

### Effectiveness of home-based intervention compared with no intervention

Five studies investigated the effectiveness of home-based intervention compared with no intervention. Four out of five included studies showed significantly greater improvements of BADL in home-based intervention group than in the control group. <sup>57 58 60 61</sup> Three studies demonstrated significant improvements on the BADL in home-based intervention but not in the control group.<sup>57 60 61</sup>

Four studies were pooled in the meta-analysis to evaluate the effect of home-based intervention compared with no intervention. 57-59 61 All of them measured the performance of BADL at treatment endpoint, and a random-effects analysis produced an insignificant result with high heterogeneity between studies (SMD=0.84; 95% CI=-0.38 to 2.05; n=231;  $I^2=94\%$ ) (figure was eliminated).

At treatment endpoint, very low-quality evidence indicates the uncertainty of the effect of home-based intervention compared with no intervention. The evidence was downgraded one level for publication bias, one level for inconsistency because of the heterogeneity between results, and two levels for imprecision as the sample size is small and the 95% CI estimated includes both null effect and appreciable benefit or harm.

### Effectiveness of home-based intervention addition to usual care compared with usual care

Ten studies investigated the effectiveness of home-based intervention compared with no intervention. One study

did not specify the between-group statistical comparison.<sup>67</sup> Seven studies found no significant difference between two groups in the ability to do daily living no matter at treatment endpoints or at follow-ups. 63-66 68-70 Two studies demonstrated significantly greater improvement in home-based intervention group than control group. 62 71 Wong and Yeung 71 and Ricauda et al 69 found significant improvement in both groups, while Batchelor et al<sup>63</sup> showed there was no significant improvement either in home-based intervention group or in the control group.

Four studies were pooled in the meta-analysis to evaluate the effect of home-based intervention addition to usual care compared with usual care. 63 64 70 71 Two studies<sup>64 71</sup> measured the performance of BADL at treatment endpoint, and a fixed-effects analysis produced a significant result (SMD=0.55; 95% CI=0.22 to 0.87; n=152;  $I^2=3\%$ ) (figure 4). All of them measured at the follow-up, and a random-effects analysis produced an insignificant result with high heterogeneity between studies (SMD=0.23; 95% CI=-0.16 to 0.62; n=545;  $I^2=77\%$ ) (figure was eliminated).

At treatment endpoint, low-quality evidence indicates the home-based intervention addition to usual care may have little or no effect on BADL compared with usual care alone. The evidence was downgraded one level for publication bias and one level for imprecision as the sample size is small.

At follow-up after intervention, very low-quality evidence indicates the uncertainty of the effect of homebased intervention addition to usual care compared with usual care alone. The evidence was downgraded one level for publication bias, one level for inconsistency because of the heterogeneity between results, and one level for imprecision as the 95% CI estimated includes both null effect and appreciable benefit or harm.

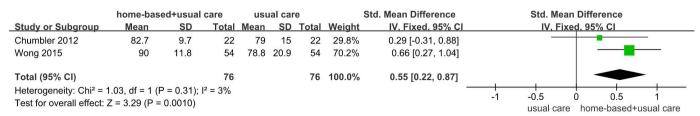


Figure 4 Forest plot comparing the effectiveness of home-based intervention addition to usual care with usual care at the treatment endpoint.



### **Subgroup analysis**

We were unable to conduct subgroup analyses according to the level of disability of the patients who had a stroke, the onset time of stroke, type of intervention or manner of delivery of the treatment because of the clinical diversity between studies, the insufficient information in the individual study and the limited number of included studies.

### Sensitivity analysis

We were unable to conduct sensitivity analyses because there was no low-quality study included in the meta-analyses.

### **Assessment of reporting bias**

We were unable to conduct the funnel plot to assess the reporting biases because of the limited number of included studies in each meta-analysis.

### DISCUSSION

Our review found that home-based intervention combined with usual care may have short-term benefits for patients who had a stroke compared with usual care alone. However, the evidence was weak because of the limited number of studies and participants included in the meta-analysis and the possible publication bias. We speculated the intensive dosage of intervention attributes to the effect of home-based intervention combined with usual care. Most included studies conducted the professional-mediated home-based intervention to participants and the usual care was also provided, which ensured the high intensity of therapy to improve the recovery of patients who had a stroke.

There was insufficient evidence to determine the shortterm effect of home-based intervention compared with the institution-based intervention, or to determine the long-term effect of home-based intervention compared with the usual care, because of the limited number of studies and participants included in the meta-analyses. There was insufficient evidence to prove the short-term effect of home-based intervention on the performance of activities of daily living in patients who had a stroke, when compared with no intervention. There was insufficient evidence to suggest the short-term effect of home-based intervention compared with usual care, or to suggest the long-term effect of home-based intervention addition to usual care compared with usual care. The heterogeneity between the studies limited the conclusions that could be drawn.

Many current rehabilitation interventions are developed in clinical setting, and some are translated to home. Home-based intervention strategies vary in type, duration, intensity, frequency and delivery manner. This systematic review revealed that exercise physiology practice and training of activity of daily living were commonly performed as home-based interventions which are supported by current evidence. American

Heart Association/American Stroke Association (AHA/ ASA) guideline suggested that lower extremity strengthening exercise and cardiovascular exercise are beneficial to improve gait capacity of patients who had a stroke and can also improve their ability to perform gaitrelated mobility tasks.<sup>74</sup> Moreover, training of activities of daily living is strongly recommended for communitydwelling patients who had a stroke.<sup>75</sup> Some newly developed home-based interventions like caregiver-mediated rehabilitation and telerehabilitation have emerged for the past two decades to replace the traditional home visits by professionals. A Cochrane systematic review found that the caregiver-mediated rehabilitation did not increase the caregiver burden but the effectiveness in the ability to perform BADL in patients who had a stroke was uncertain.<sup>73</sup> One large study found that the lower dose of caregiver-guided rehabilitation training and non-multidisciplinary coordination might decrease the efficacy of caregiver-mediated home-based interventions.<sup>51</sup> Telerehabilitation seemed to be a good alternative to traditional rehabilitation. Chen et al delivered the same treatment strategy to home-based telerehabilitation group and institution-based rehabilitation group.<sup>26</sup> At the end of intervention and at follow-up, both groups showed significant improvement in the ability to do activities of daily living, and there was no significant difference between two groups throughout the time. Similarly, when comparing with the traditional face-to-face way of home-based intervention performed by professionals, home-based telerehabilitation showed equal positive effect on enhancing the ability to do activities of daily living of patients who had a stroke.<sup>76</sup> More high-quality studies and practice are required to prove the effectiveness of those new strategies.

### Limitations

There is no sufficient study to determine the effectiveness of home-based intervention compared with other approaches. Although 49 studies were included in the review, many of them did not report adequate data so they were not included in the meta-analyses; therefore, only two to four studies were included in each meta-analysis. Moreover, among the 49 included studies, several studies of the original study and their follow-up study shared the same study population, including two studies conducted by Chaiyawat et al, 45 46 four studies conducted by von Koch et  $al^{89-42}$  and two studies conducted by Gladman et al.<sup>28</sup> <sup>29</sup> Therefore, only 44 trials were included. Nearly half of studies included in the meta-analyses had sample size smaller than 30. The clinical heterogeneity between studies in terms of severity of stroke, onset time of stroke, interventions and manner of delivery also compromised the evidence strength of our meta-analyses. Estimation of publication bias using funnel plots failed because of the insufficient number of included studies in each metaanalysis. Publication bias was possibly increased as we have not searched for the grey literature.



### CONCLUSION

Our finding reveals that the home-based intervention combined with usual care may be more effective than usual care alone for the short-term effect. However, the evidence is weak. Future research with larger sample size is needed to investigate the effectiveness of home-based rehabilitation, including (1) on groups with stratification of stroke severity defined by Brunnstrom stage; (2) on groups with stratification of acute, subacute and chronic stroke; (3) with elaboration of the details of the home-based interventions and the control interventions. Moreover, more high-quality studies are required to prove the cost-effectiveness of newly developed strategies like caregiver-mediated rehabilitation and telerehabilitation.

**Contributors** XJW and PQ designed the review. PQ and CXC screened and selected the study. PQ and CC rated the study quality and extracted the data. PQ analysed the data and drafted the paper. XJW revised the paper. All authors acknowledged and agreed with the format and content of the paper before submission for publication. XJW is the guarantor and responsible for the overall contents of this study.

Funding This work is supported by the Medical Research Fund of Guangdong Province (No: A2021041), The Science and Technology Project of Shenzhen Municipality (No: JCYJ20190814112607443) and Seedling Program of Shenzhen Hospital of Southern Medical University (No: 2018MM08).

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Not required.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement No data are available. Not applicable.

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# Appendix 1.

# Search strategy of MEDLINE through PubMed

MEDLINE	
#1	stroke [Mesh]
#2	hemiplegia [Mesh]
#3	"cerebrovascular disorders" [Mesh]
#4	"cerebral vascular accident"
#5	"cerebrovascular accident"
#6	"cerebral vascular disease"
#7	"cerebrovascular disease"
#8	"cerebral vascular disorder"
#9	"cerebrovascular disorder"
#10	"stroke"
#11	"hemiplegia"
#12	"hemiplegic"
#13	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR
	#8 OR #9 OR #10 OR #11 OR #12
#14	"home care services" [Mesh]
#15	"home care service"
#16	"home care"
#17	"home based"
#18	home

#19	"residential care service"
#20	"residential care"
#21	"residence based"
#22	"residence"
#23	"resident"
#24	#14 OR #15 OR #16 OR #17 OR #18 OR #19 OR
	#20 OR #21 OR #22 OR #23
#25	activities of daily living [Mesh]
#26	"activities of daily living"
#27	"ADL"
#28	"barthel index"
#29	"BI"
#30	"FIM"
#31	"functional independence measure"
#32	"daily life activity"
#33	#25 OR #26 OR #27 OR #28 OR #29 OR #30 OR
	#31 OR #32
#34	#13 AND #24 AND #33
Filters:	Article types: randomized controlled trial
	Text availability: full text
	Publication date: from 1000.1.1 to 2021.12.31
	Language: English

	Journal: MEDLINE
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# Search strategy of Embase through EMBASE.com

EMBASE	
#1	'cerebrovascular accident' / exp OR 'cerebrovascular accident'
#2	'cerebral vascular accident' / exp OR 'cerebral vascular accident'
#3	'cerebrovascular disease' / exp OR 'cerebrovascular disease'
#4	'cerebral vascular disease' / exp OR 'cerebral vascular disease'
#5	'cerebral vascular disorder' / exp OR 'cerebral vascular disorder'
#6	'cerebrovascular disorder' / exp OR 'cerebrovascular disorder'
#7	'stroke'/ exp OR 'stroke'
#8	'hemiplegia' / exp OR 'hemiplegia'
#9	'hemiplegic' / exp OR 'hemiplegic'
#10	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9
#11	'home care service' / exp OR 'home care service'
#12	'home care' / exp OR 'home care'
#13	'home based'
#14	'home' / exp OR 'home'
#15	'residential care service'
#16	'residential care' / exp OR 'residential care'
#17	'residence based'
#18	'residence' / exp OR 'residence'
#19	'resident' / exp OR 'resident'

#20	#11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19
#21	'activities of daily living' / exp OR 'activities of daily living'
#22	'daily life activity' / exp OR 'daily life activity'
#23	'adl'
#24	'barthel index' / exp OR 'barthel index'
#25	'bi'
#26	'functional independence measure' / exp OR 'Functional independence
	measure'
#27	'fim'
#28	#21 OR #22 OR #23 #24 OR #25 OR #26 OR #27
#29	#10 AND #20 AND #28
	Sources: Embase
Filters:	Study type: randomized controlled trial
	Publication type: article
	Publication year: <1966 to 2021
	Language: English

# Search strategy of CINAHL through EBSCOhost

CINAHI	
S1	"cerebral vascular accident" (Find all my search terms)
S2	"cerebrovascular accident" (Find all my search terms)
S3	"cerebral vascular disease" (Find all my search terms)
S4	"cerebrovascular disease" (Find all my search terms)
S5	"cerebral vascular disorder" (Find all my search terms)
S6	"cerebrovascular disorder" (Find all my search terms)
S7	"stroke" (Find all my search terms)
S8	"hemiplegia" (Find all my search terms)
S9	"hemiplegic" (Find all my search terms)
S10	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9
S11	"home care service" (Find all my search terms)
S12	"home care" (Find all my search terms)
S13	"home based" (Find all my search terms)
S14	"home" (Find all my search terms)
S15	"residential care service" (Find all my search terms)
S16	"residential care" (Find all my search terms)
S17	"residence based" (Find all my search terms)
S18	"residence" (Find all my search terms)
S19	"resident" (Find all my search terms)
S20	S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19

S21	"activities of daily living" (Find all my search terms)
S22	"ADL" (Find all my search terms)
S23	"barthel index" (Find all my search terms)
S24	"BI" (Find all my search terms)
S25	"functional independence measure" (Find all my search terms)
S26	"FIM" (Find all my search terms)
S27	"daily life activity" (Find all my search terms)
S28	S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27
S29	S10 AND S20 AND S28
Filters:	Publication type: Randomized controlled trial
	Linked full text
	Publication date: to 2021.12.31
	Language: English

### Supplementary table 1 Characteristics of included studies

Author	Grouping		Characteristics	s of participants		Brief	Outcome mea	Results	
Year	(Number of	Age (year):	Gender:	Time after	Disability level	description of	Measurement tools	Measurement timepoints	
	participants)		Male/Female	stroke onset	of stroke	intervention			
						(Treatment			
						strategy, mode			
						of delivery,			
						treatment			
						provider)			
Asano	Home-based	mean (range):	32/29	Within 4 weeks	Not specified	Progressive	Modified Barthel Index	At 3 months after post	(1) Both the home-based
2021	tele-	63.8 (40.8-89.6)				rehabilitation	(MBI)	rehabilitation (at treatment	intervention group
	rehabilitation					exercises		endpoints)	and control group
	(n=61)					including			showed
						exercise training			improvements in
						and training of			MBI score at
						functional			treatment endpoint
						activities were			(2) There was no
						prescribed by a			between-group
						tele-therapist and			difference at
						performed by			treatment endpoint
						patients			
						themselves			
	Institution-	mean (range):	33/30			Centre-based			
	based	64.4 (40.7-86.6)				outpatient			
	intervention					rehabilitation			
	(n=63)					was provided			
						approximately			
						once or twice a			
		( - · ·		4		week			
Baskett	Home-based	mean (SD):	27/23	mean (SD):	Not specified	Home-based self-	Modified Barthel Index	(1) At 6 weeks after discharge	(1) There was no
1999	self-directed	67.8 (11.6)		38.6 (28.1) days		directed	(MBI)	from hospital	between-group
	exercises			staying in		exercises aiming		(2) At 3 months after	difference either at 6
	(n=50)			hospital		at improve the		discharge from hospital (at	weeks after discharge

						ability of ADL		treatment endpoints)	or at treatment
						were prescribed		1 /	endpoint
						by professionals			1
						for patients and			
						their caregivers			
	Institution-	mean (SD):	30/20	mean (SD):		Outpatient or day			
	based	71.7 (9.1)		37.5 (36.4) days		hospital therapy			
	intervention	, ,		staying in		was provided			
	(n=50)			hospital		•			
Björkdahl	Home-based	median (range):	22/8	mean (range):	Not specified	Home-based	Functional Independence	(1) At 3 weeks after discharge	(1) The home-based
2006	intervention	52 (28-61)		27 (9-58) days	•	intervention	Measure (FIM)	(at treatment endpoint)	intervention group
	(n=30)			staying in acute		which was focus	, , ,	(2) At 3 months	showed no improvement
				hospital;		on activities in		(3) At 1 year follow-up	in FIM motor sum score
				mean (range):		patients' natural			from discharge to the 1
				66 (24-155) days		context was			year follow-up
				staying in		provided by			(2) The control group
				rehabilitation		professionals			(day clinic group) showed
				unit		during home			improvements in FIM
						visits			motor sum score from
	Institution-	median (range):	22/7	mean (range):		Outpatient			discharge to the 1 year
	based	55 (27-64)		30 (7-70) days		therapy which			follow-up and from 3
	intervention			staying in acute		was focus on the			months follow-up to 1
	(n=29)			hospital;		training of			year follow-up
				mean (range):		deficits or			(3) There was no
				61 (20-134) days		components of			between-group difference
				staying in		function was			either at treatment
				rehabilitation		provided in a day			endpoint or at follow-up
				unit		clinic			
Chen	Home-based	mean (SD):	18/9	14 to 90 days	National Institute	Home-based	Modified Barthel Index	(1) At 12 weeks after	(1) Both the home-based
2017	telesupervisin	66.52 (12.08)			of Health Stroke	intervention	(MBI)	randomisation (at treatment	intervention group and
	g				Scale (NIHSS)	including		endpoint)	control group showed
	rehabilitation				scores from 2 to	physical		(2) At 24 weeks after	improvements in MBI
	(n=27)				20 and modified	exercises with		randomisation	score at treatment
					Rankin Scale	ADL training and			endpoint

					(mRS) scores	the ETNS			(2) There was no
					from 1 to 5	therapy was			between-group difference
						performed by			either at treatment
						patients			endpoint or at follow-up
						themselves with			
						or without			
						caregivers' help			
						under the tele-			
						supervision by			
						professionals			
	Institution-	mean (SD):	15/12			Outpatient			
	based	66.15 (12.33)				rehabilitation			
	intervention					with the same			
	(n=27)					treatment			
						strategy of home-			
						based			
						intervention was			
						provided by			
						professionals			
Chen	Home-based	mean (SD):	14/12	Within 1-3 weeks	National Institute	Home-based	Modified Barthel Index	(1) At 12 weeks after	There was no between-
2020	motor training	64.19 (9.42)				intervention	(MBI)	randomisation (at treatment	group difference in the
	telerehabilitati				Scale (NIHSS)	including		endpoint)	mean change score of
	on				scores from 2 to	physical		(2) At 24 weeks after	MBI either at treatment
	(n=26)				20	exercises with		randomisation	endpoint or at follow-up
						ADL training and			
						the ETNS			
						therapy was			
						performed by			
						patients themselves with			
						or without caregivers' help			
						under the tele-			
						supervision by			
						supervision by	<u> </u>		

						professionals			
	Institution-	mean (SD):	12/14			Outpatient			
	based	59.42 (10.00)	12/14			rehabilitation			
	intervention	37.42 (10.00)				with the same			
	(n=26)					treatment			
	(11–20)					strategy of home-			
						based			
						intervention was			
						provided by professionals			
Cladana	D		85/77	NI-4: C - 1 14	N-4 : C - 1	•	D41 -1 I - 1 (DI)	Α	There was no between-
Gladman 1993	Domiciliary-	mean:	85///	Not specified but	Not specified	Home-based intervention was	Barthel Index (BI)	At 6 months after discharge	
1993	based rehabilitation	/0		with description of acute stroke				(at treatment endpoint)	group difference in the BI
				of acute stroke		performed by			score at treatment
	(n=162)					professionals			endpoint
						during home			
			00.75	_		visits			
	Institution-	mean:	88/77			Outpatient			
	based	70				rehabilitation			
	intervention					according to the			
	(n=165)					usual practices in			
						Nottingham,			
						where there had			
						hitherto been no			
						domiciliary			
						rehabilitation			
						service was			
						provided			
Gladman	Domiciliary-	mean:	85/77	Not specified but	Not specified	Home-based	Barthel Index (BI)	At 12 months after discharge	There was no between-
1994	based	70		with description		intervention was			group difference in the BI
	rehabilitation			of acute stroke		performed by			score at 12 months follow
	(n=162)					professionals			up
						during home			
				_		visits			
	Institution-	mean:	88/77			Outpatient			

	based	70				rehabilitation			
	intervention					according to the			
	(n=165)					usual practices in			
						Nottingham,			
						where there had			
						hitherto been no			
						domiciliary			
						rehabilitation			
						service was			
						provided			
Han	Home-based	mean (SD):	8/4	mean (SD):	modified Rankin	Home-based	Barthel Index (BI))	At 6 weeks (at treatment	(1) There was no
2020	reablement	70.8 (6.5)		22.8 (17.7)	Scale (mRS)	intervention of		endpoint)	between-group
	programme			months	scores from 2 to 4	ADL training			difference in the
	(n=12)					was provided by			change score of BI at
						professionals			treatment endpoint
						during home			(2) There was no
						visits			between-group
	Institution-	mean (SD):	9/5	mean (SD):		Conventional			difference in the BI
	based	65.4 (16.7)		53.5 (43.7)		rehabilitation			score at treatment
	intervention			months		including 30			endpoint
	(n=14)					minutes of			
						occupational			
						therapy and 30			
						minutes of			
						physical therapy			
						for training			
						motor and			
						cognitive			
						functions was			
						provided in the			
						hospital for twice			
						a week			
Hesse	Intermittent	mean (SD):	13/12	mean (SD):	Patients could	(1) An		(1) At every second month	(1) Both the home-based
2011	high-intensity	62.4 (11.3)		12.9 (2.3) weeks	walk	intermittent	Daily Living scales	from the discharge from	intervention group

Supplemental material

home-based				independently	high-	inpatient rehabilitation to	and control group
physiotherapy				within their home	intensity	home during the 12-	showed
programme				- technical aids	home-based	months study period (at 2	improvements in
(n=25)				were allowed -	physiotherap	months after discharge;	Rivermead Activities
				but they still	y programme	at 4 months after	of Daily Living
				needed help with	was provided	discharge; at 6 months	scales (self-care)
				personal hygiene,	by	after discharge; at 8	score overt time
				dressing, feeding	professional	months after discharge;	(2) There were no
				and stair	during home	at 10 months after	between-group
				climbing,	visits	discharge; at 12 months	differences in
				resulting in a	(2) Self-therapy	after discharge which	Rivermead Activities
				Barthel Index	programme	was at treatment	of Daily Living
				(BI, 0–100)	consisting of	endpoint)	scales (self-care)
				ranging from 55	various	(2) At 15 months after	score at any time
				to 80	stretching,	discharge (at 3 months	
					strengthenin	after treatment)	
					g and motor		
					tasks was		
					performed		
					by patients		
					and their		
					caregivers		
Institution-	mean (SD):	14/11	mean (SD):		Regular		
based	61.9 (9.4)		14.8 (3.9) weeks		physiotherapy		
intervention					programme		
(n=25)					which treatment		
					strategy was		
					similar to the		
					home-based		
					intervention,		
					consisting of two		
					weekly 30 to 45		
					minutes		
					physiotherapy		

		l				_			1
						sessions was			
						provided by a			
						physiotherapist			
						in the private unit			
Hofstad	Early	mean (range):	61/43	Within 7 days	NIHSS score of	Home-based	Barthel Index (BI)	(1) At 3 months follow-up	(1) The home-based
2014	supported	72.00 (27-92)			2-26, and NIHSS	intervention was		(2) At 6 months follow-up	intervention group
	discharge to				<2 with modified	provided by a			showed improvement
	home with				Rankin Scale	multi-			in BI score at 3
	home-based				(mRS) score ≥2	disciplinary			months follow-up,
	intervention					community			and a trend for
	(n=104)					health team			improvement at 6
						during home			months follow-up
						visits			(2) The institution-based
	Institution-	mean (range):	56/47			Rehabilitation			intervention group
	based	70.61 (29-91)				treatment was			showed improvement
	intervention					provided by			in BI score at 3
	(n=103)					professionals in a			months and 6 months
						community day			follow-up
						unit			(3) There was no
									between-group
									difference either at 3
									months or 6 months
									follow-up
Kalra	Domiciliary	median (IQR):	81/68	Within 72 hours	Moderately	Home-based	Barthel Index (BI)	(1) At 3 months after stroke	(1) A favourable
2000	stroke care	77.7 (67-83)			severe stroke	intervention was		onset	outcome of BI score
	(n=149)				(patients with	provided by a		(2) At 12 months after stroke	15-20 at 3 months
					persistent	specialist stroke		onset	was seen in 82% of
					neurological	team during			patients in the stroke-
					deficit affecting	home visits			unit group compared
	Institution-	median (IQR):	79/69		continence,	Coordinated	]		with 70% of patients
	based	75 (72-84)			mobility, and	treatment was			in the stroke team
	intervention				ability to look	provided by a			and 74% of patients
	(in stroke unit)				after themselves,	multidisciplinary			in the domiciliary-
	(n=148)				requiring	team in the stroke			care group
	based intervention (in stroke unit)	, - ,	79/69		continence, mobility, and ability to look after themselves,	Coordinated treatment was provided by a multidisciplinary			with 70% of patie in the stroke team and 74% of patier in the domiciliary

					multidisciplinary	unit				(2) There was no
	Institution-	median (IQR):	74/76		treatment)	Day-to-day				significant change in
	based	77.3 (71-83)				treatment was				BI score in any
	intervention					prescribed by a				groups between 3 and
	(in general					specialist team				12 months follow ups
	ward)					and was provided				
	(n=150)					by staff in the				
						general ward				
Özdemir	Home-based	48-80	19/11	mean (range):	Not specified	Home-based	Functional Indepen	ndence	At treatment endpoint	(1) The institution-based
2001	rehabilitation			36 (15-75) days		interventions	Measure (FIM)			intervention group
	(n=30)					including				showed improvement
						exercises and				in FIM score at
						provision of				treatment endpoint
						splints, orthoses				(2) The institution-based
						and devices were				intervention group
						prescribed by				showed greater
						professionals and				improvement in FIM
						was performed				score than the home-
						by patients and				based intervention
						family members				group at treatment
	Institution-		21/9	mean (range):		Intense				endpoint
	based			41 (10-82) days		multidisciplinary				
	intervention					rehabilitation				
	(n=30)					services				
						including				
						therapeutical and				
						neuromuscular				
						exercises with				
						occupational				
						therapy were				
						provided in the				
						rehabilitation				
						clinic				
Pandian	Family-led,	mean (SD):	61/43	Within 1 month	Patients with	Home-based	modified Rankin	Scale	(1) At 3 months follow up	(1) 26 (29%) patients had

2015	trained	60 (13)			residual	interventions	(mRS)	(2) At 6 months follow up	a good outcome
	caregiver-				disability	including		1	(mRS 0–2) and 64
	delivered,				(defined as	positioning,			(71%) a poor
	home-based				requiring help	transfers,			outcome (mRS 3–6)
	rehabilitation				from another	mobility, task-			at 3 months follow up
	intervention				person for	orientated			(2) 35 (39%) had a good
	(n=50)				everyday	training			outcome and 54
					activities)	(particularly			(61%) had a poor
						walking, upper-			outcome at 6 months
						limb, and self-			follow up
						care tasks)			Tene w up
						prescribed by			
						professionals			
						were performed			
						by patients'			
						caregivers			
	Institution-					Routine care was			
	based					provided on an			
	intervention					in- or out-patient			
	(n=54)					basis			
Redzuan	Video-based	mean (SD):	21/23	mean (SD):	10 patients with	Home-based	Modified Barthel Index	At 3 months after discharge	(1) More patients in the
2012	therapy	63.7 (12)		12.9 (8) days	mild stroke	interventions	(MBI)		home-based
	programme at			staying in	(NIHSS score <	including			intervention group
	home			hospital	6);	exercises and			(60%) had improved
	(n=44)				26 patients with	training of			MBI scores
					moderate stroke	activities of daily			compared with
					(NIHSS score =	living were			patients in the control
					6-14);	prescribed by			group (45.7%)
					8 patients with	professionals and			(2) Both the home-based
					severe stroke	were performed			intervention group
					(NIHSS score >	by patients			and control group
					14)	and/or their			showed
						caregivers			improvements in
	Institution-	mean (SD):	31/15	mean (SD):	17 patients with	Outpatient			MBI score at 3

	based intervention (n=46)	59.4 (11)		10.9 (7) days staying in hospital	mild stroke (NIHSS score < 6); 24 patients with moderate stroke (NIHSS score = 6-14); 5 patients with	therapy for 1 hour each for physical and occupational therapy was provided weekly			months follow up
					severe stroke (NIHSS score > 14)				
Roderick 2001	Domiciliary rehabilitation service (n=66)	mean (range): 78.3 (62-91)	33/33	median (IQR): 50 (36.8, 85.3) days staying in hospital	Not specified	Home-based intervention was provided by a physiotherapist and an occupational therapist	Barthel Index (BI)	At 6 months follow up	(1) Both the home-based intervention group and control group showed improvements in BI score at 6 months follow up
	Institution- based intervention (n=74)	mean (range): 79.6 (60-95)	32/42	median (IQR): 48 (30, 80) days staying in hospital		Therapy was provided by multi-disciplinary teams in day hospitals			(2) There was no between-group difference at 6 months follow up
Taule 2015	Early supported discharge at home (n=53)	median (range): 74 (42-92)	29/24	Within 1-7 days	2-26 in the NIHSS score	Home-based intervention was mainly directed towards ADLs, and function-specific treatment was also provided by a professional during home	<ul> <li>(1) Assessment of Motor and Process Skillsmotor scale (AMPSmotor scale)</li> <li>(2) modified Rankin Scale (mRS)</li> </ul>	At 3 months follow-up	No within-group or between-group statistical analysis

						visits			
	Institution-	mean (range):	29/21			Therapy which			
	based	72 (29-90)				focused on			
	intervention					specific functions			
	(n=50)					and on specific			
						instrumental			
						ADL activities			
						was provided by			
						the municipal			
						health-care team			
						in a day unit			
Thorsén	Early	mean:	15/15	5-7 days	Patients with	The home-based	Barthel Index (BI)	At 5 years after stroke	There was no between-
2005	supported	71			mild to moderate	intervention			group difference at 5
	discharge				impairments	emphasizing a			years follow up
	(ESD) with				(independence in	task- and			
	continued				feeding and	context-oriented			
	rehabilitation				continence	approach, which			
	at home				according to Katz	implies that the			
	(n=30)				index of ADL	patient performs			
					with impaired	-			
					motor capacity	supervised, or			
					according to the	self-directed			
					Lindmark scale)	activities in a			
						functional and			
						familiar context,			
						was provided by			
						professionals			
						during home			
		<u> </u>  -				visits			
	Institution-		14/10			Routine			
	based					rehabilitation			
	intervention					service was			
	(n=24)					provided in the			
						hospital, day			

						care, and/or			
						outpatient care			
von Koch	Early	Not specified	Not specified	5-7 days	Patients with	The home-based	Barthel Index (BI)	At 12 months after stroke	There was no between-
2001	supported	1 vot specifica	1 tot specifica	3 / days	moderate	intervention	Burther mack (B1)	710 12 months after stroke	group difference at 12
2001	discharge				impairments	emphasizing a			months follow up
	(ESD) with				(independence in	task- and			months follow up
	continued				feeding and	context-oriented			
	rehabilitation				continence	approach, which			
	at home				according to Katz	implies that the			
	(n=39)				index of ADL	patient performs			
	(11 25)				with impaired	guided,			
					motor capacity	supervised, or			
					according to the	self-directed			
					Lindmark scale)	activities in a			
						functional and			
						familiar context,			
						was provided by			
						professionals			
						during home			
						visits			
	Institution-					Routine			
	based					rehabilitation			
	intervention					service was			
	(n=38)					provided in the			
	, ,					hospital, day			
						care, and/or			
						outpatient care			
von Koch	Early	median (range):	22/18	5-7 days	Patients with	The home-based	Barthel Index (BI)	At 6 months after stroke	There was no between-
2000	supported	72 (49-84)			moderate	intervention			group difference at 6
	discharge				impairments	emphasizing a			months follow up
	(ESD) with				(independence in	task- and			
	continued				feeding and	context-oriented			
	rehabilitation				continence	approach, which			
	at home				according to Katz	implies that the			

	(n=40)				index of ADL	patient performs			
	(11 40)				with impaired	guided,			
					motor capacity	supervised, or			
					according to the	self-directed			
					Lindmark scale)	activities in a			
					Linumark scale)	functional and			
						familiar context,			
						was provided by			
						professionals			
						during home			
						visits			
	Institution-		21/17	-		Routine			
	based	median (range): 73 (49-89)	21/1/			rehabilitation			
	intervention	/3 (49-89)							
						service was provided in the			
	(n=38)					_			
						hospital, day care, and/or			
						outpatient care			
Widén	Early	mean (SD):	22/19	5-7 days	Patients with	The home-based	Barthel Index (BI)	At 3 months after stroke	There was no between-
Holmqvist	supported	70.8 (7.6)	22/19	3-7 days	moderate with	intervention	Dartilei Ilidex (DI)	At 3 months after stroke	group difference at 3
1998	discharge	70.8 (7.0)			impairments	emphasizing a			months follow up
1770	(ESD) with				(independence in	task- and			months follow up
	continued				feeding and	context-oriented			
	rehabilitation				continence	approach, which			
	at home				according to Katz	implies that the			
	(n=41)				index of ADL	patient performs			
	(11-41)				with impaired	guided,			
					motor capacity	supervised, or			
					according to the	self-directed			
					Lindmark scale)	activities in a			
					Zinamark scale)	functional and			
						familiar context,			
						was provided by			
						professionals			
			L	L	<u> </u>	Protessionals	<u> </u>		

Young 1992	Institution- based intervention (n=40)  Home physiotherapy	mean (SD): 72.6 (8.9)  median (range): 70 (60-89)	22/18	Not specified but with description	Not specified	during home visits  Routine rehabilitation service was provided in the hospital, day care, and/or outpatient care  Home-based intervention was	Barthel Index (BI)	At 6 months after discharge	(1) Both the home-based intervention group
	Institution-based intervention	median (range): 72 (60-88)	31/30	of patients with a new stroke episode		provided by one of five experienced community physiotherapists during home visits  Rehabilitation was provided in one of four geriatric day			and control group showed improvements in BI score at 6 months follow up (2) The home-based intervention showed greater improvement in BI score than the institution-based
	(n=61)					hospitals twice a week			intervention group at 6 months follow up
Barzel 2015	Home-based constraint- induced movement therapy (CIMT) (n=85)	mean (SD): 62.55 (13.73)	51/34	mean (SD): 56.57 (47.36) months	Minor: n=68 Moderate: n=16 Major: n=1	Home CIMT which was relevant to everyday life was performed with the coaching by non-professional (eg, family member)	Barthel Index (BI)	(1) At 4 weeks after intervention (at treatment endpoint) (2) At 6 months follow-up	(1) The home-based intervention group showed improvement in BI score at treatment endpoint relative to baseline, but showed no improvement at 6 months follow-up
	Usual care	mean (SD):	43/28	mean (SD):	Minor: n=54	Traditional			(2) The usual care group

	(n=71)	65.30 (12.63)		45.65	(57.69)	Moderate: n=16	physiotherapy			showed no
	(11 /1)	03.30 (12.03)		months	(37.03)	Major: n=1	and occupational			improvement in BI
				1110111111		1.1 <b>.1.</b> 1	therapy were			score either at
							performed by			treatment endpoint or
							professionals			at 6 months follow-
							either in a			up
							patient's home or			(3) There was no
							in a therapeutic			between-group
							practice			difference at 6
							1			months follow-up
Chaiyawat	Home-based	mean (SD):	14/16	Patients	were	mean (SD):	Home-based	Barthel Index (BI)	At 2 years after discharge	(1) Both the home-based
2012	individual's	67 (10)		screened	for	16.4 (4.1) in the	individual's		from the hospital	intervention group
	exercise			eligibility	around	National Institute	exercise			and the usual care
	programme			3 days	after	of Health Stroke	programme			group showed
	(n=30)			stroke ons	set	Scale (NIHSS)	included			improvement in BI
						score	exercises and			score at 2 years
							ADL practice			follow-up
							was performed			(2) The home-based
							by a professional			intervention group
							during home			showed significantly
							visits, with			greater improvement
							provision of			than usual care group
							standard			at 2 years follow-up
							materials on an			
							audiovisual CD			
							of rehabilitation			
							procedures			
	Usual care	mean (SD):	13/17			mean (SD):	Might include			
	(n=30)	66 (11)				17.8 (3.9) in the	outpatient			
						NIHSS score	rehabilitation and			
							instruction for			
							home			
							rehabilitation at			
							the discretion of			

						their physicians			
Chaiyawat	Home-based	mean (SD):	14/16	Not specified	mean (SD):	Home-based	Barthel Index (BI)	At 3 months after discharge	(1) The home-based
2009	individual's	67 (10)			16.4 (4.1) in the	individual's		from the hospital	intervention group
	exercise				National Institute	exercise			showed improvement
	programme				of Health Stroke	programme			in BI score at 3
	(n=30)				Scale (NIHSS)	included			months
					score	exercises and			(2) The home-based
						ADL practice			intervention group
						was performed			showed significantly
						by a professional			greater improvement
						during home			than usual care group
						visits, with			at 3 months
						provision of			
						standard			
						materials on an			
						audiovisual CD			
						of rehabilitation			
						procedures			
	Usual care	mean (SD):	13/17		mean (SD):	Might include			
	(n=30)	66 (11)			17.8 (3.9) in the	outpatient			
					NIHSS score	rehabilitation and			
						instruction for			
						home			
						rehabilitation at			
						the discretion of			
						their physicians			
Chen	Nurse-guided	mean (SD):	41/18	mean (SD):	Not specified	Environmental	Barthel Index (BI)	(1) At 3 months after	(1) The home-based
2021	home-based	55.41 (6.78)		3.41 (0.79)		modification of		initiation of	intervention group
	rehabilitation			months		home and		rehabilitation	showed significantly
	exercise					exercise		(2) At 6 months after	higher BI score than
	programme					programme		initiation of	usual care group at 3
	(n=59)					mainly including		rehabilitation	months, 6 months
						strengthening		(3) At 12 months after	and 12 months after
						training of the		initiation of	initiation of

						lower muscle		rehabilitation (at	rehabilitation
						groups were		treatment endpoint)	(2) The home-based
						provided by a		•	intervention group
						nurse during			showed significantly
						home visits			greater improvement
	Usual care	mean (SD):	44/18	mean (SD):		Conventional			than usual care group
	(n=62)	56.41 (6.13)		3.23 (0.82)		rehabilitation			at 3 months, 6
				months		included issuing			months and 12
						a rehabilitation			months after
						manual for			initiation of
						stroke,			rehabilitation
						performing			
						telephonic			
						follow-up and			
						completing			
						follow-up			
						medical			
						appointments for			
						assessment of			
						recovery at 3, 6			
						and 12 months			
Deng	Integrated	mean (SD):	32/17	mean (SD):	mean (SD):	Stroke	Modified Barthel Index	` ′	, ,
2020	transitional	60.7 (17.8)		15 (6) days' stay	8.9 (4.9) in the	rehabilitation	(MBI)	discharge from stroke	intervention group
	care			in stroke unit	NIHSS score	was provided by		unit	showed significantly
	programme					a		(2) At 8 weeks after	
	(n=49)					multidisciplinary		discharge from stroke	
						poststroke		unit (at treatment	
						consultation team		endpoint)	weeks after discharge
						during home			from stroke unit
						visits			(2) The home-based
	Usual care	mean (SD):	30/19	mean (SD):	mean (SD):	Usual post-			intervention group
	(n=49)	62.9 (20.5)		17 (9) days' stay	9.1 (4.5) in the	discharge care			showed significantly
				in stroke unit	NIHSS score	consisted of			greater improvement
						detection and			than usual care group

						control of			at 4 weeks and 8
						potential risk			weeks after discharge
						*			from stroke unit
						factors and			from stroke unit
						medication			
						therapy based on			
						secondary stroke			
						prevention			
						strategy			
Duncan	Therapist-	mean (SD):	Not described	30 to 90 days	Minimal or	Home-based	Barthel Index (BI)	At 12 weeks after the	There was no between-
1998	supervised	67.3 (9.6)			moderately	exercises were		baseline assessment (at	group difference at 12
	home-based				impaired	provided by a		treatment endpoint)	weeks follow-up
	exercise				sensorimotor	physical therapist			
	programme				function (Fugl-	during home			
	(n=10)				Meyer Motor	visits			
	Usual care	mean (SD):			Score 40 to 90	Usual care			
	(n=10)	67.8 (7.2)				included home			
						health visits and			
						outpatient			
						therapy			
Hofstad	Early	mean (range):	61/43	Within 7 days	NIHSS score of	Home-based	Barthel Index (BI)	(1) At 3 months follow-up	(1) The home-based
2014	supported	72.00 (27-92)			2-26, and NIHSS	intervention was	, ,	(2) At 6 months follow-up	intervention group
	discharge	, ,			<2 with modified	provided by a			showed improvement
	(ESD) to				Rankin Scale	multi-			in BI score at 3
	home with				(mRS) score ≥2	disciplinary			months follow-up,
	home-based					community			and a trend for
	intervention					health team			improvement at 6
	(n=104)					during home			months follow-up
						visits			(2) The usual care group
	Usual care	mean (range):	52/47	-		Usual care	-		showed no
	(n=99)	74.19 (32-98)	32/7/			without any			improvement in BI
	(11-99)	77.19 (32-90)				intervention from			score either at 3
									months or 6 months
						the study			follow-up
									*
								<u> </u>	(3) There was no

									between-group difference either at 3 months or 6 months follow-up
Lincoln 2004	Home-based intervention (n=189)	mean (SD): 72.8 (11.4)	94/95	Within 2 years	Not described	Home-based intervention including physiotherapy, occupational therapy, speech and language therapy were provided by a multidisciplinary team during home visits		At 6 months after randomization	There was no between- group difference in BI score at 6 months after randomization
	Usual care (n=232)	mean (SD): 71.2 (11.5)	128/104			Routine rehabilitation services included day hospitals, outpatients departments and social services occupational therapy			
Lindley 2017	Family-led home-based rehabilitation (n=623)	mean (SD): 57.5 (12.92)	421/202	Within 1 month	mean (SD): 10.1 (4.9) in the NIHSS score	(1) Family rehabilitatio n training including information provision, joint goal setting, carer training, and	Barthel Index (BI)	<ul> <li>(1) At 3 months after randomization</li> <li>(2) At 6 months after randomization</li> </ul>	There was no between- group difference in BI score either at 3 months or at 6 months follow-up

						task-specific training was performed by a professional during home visits  (2) Home-based intervention for patients was mediated by			
	Usual care (n=627)	mean (SD): 58.0 (14.21)	416/211		mean (SD): 9.6 (4.8) in the NIHSS score	Usual care consisted of some therapy, in the form of assessment and treatment by a physiotherapist, during hospital stay, with post-discharge care varying from no therapy to some outpatient therapy sessions			
Mayo 2000	Tailor-made home programme with prompt discharge from hospital (n=58)	mean (SD): 70.3 (12.7)	37/21	28 days	mean (SD): 8.9 (2.2) in the Canadian Neurological Scale (CNS) score	Home-based intervention including physical therapy, occupational therapy, speech therapy, and	Barthel Index (BI)	<ul><li>(1) At 1 month (at treatment endpoint)</li><li>(2) At 3 months follow-up</li></ul>	(1) The home-based intervention group showed improvement in BI score at 1 month and at 3 months follow-up (2) The usual care group

						dietary			showed improvement
						consultation was			in BI score at 1
									month and at 3
						provided by a			
						multidisciplinary			months follow-up
						team during			(3) There was no
						home visits			between-group
	Usual care	mean (SD):	40/16		mean (SD):	Usual care			difference either at 1
	(n=56)	69.6 (12.7)			8.9 (2.1) in the	comprised a			month or at 3 months
					Canadian	range of services,			follow-up
					Neurological	including PT, OT			
					Scale (CNS)	and ST as			
					score	requested by the			
						patient's care			
						provider and			
						offered through			
						extended acute-			
						care hospital			
						stay; inpatient or			
						outpatient			
						rehabilitation; or			
						home care via			
						local community			
						health clinics.			
Rasmussen	Early home-	median (IQR):	16/22	Not specified but	median (IQR):	Home-based	Modified Barthel Index	At 90 days follow-up	There was no between-
2016	based	78 (72-84)		with description	44 (37-46) in the	interventions	(MBI)		group difference in MBI
	rehabilitation			of acute stroke	Scandinavian	including	,		score at 90 days follow-
	(n=38)				Stroke Scale	physical			up
					Score	exercises and			r
						training of			
						activities of daily			
						living were			
						provided by a			
						multidisciplinary			
						team during			

						home visits			
	Usual care	median (IQR):	14/19	_	median (IQR):		-		
			14/19			Usual care was			
	(n=33)	79 (71-85)			42 (31-46) in the	provided by			
					Scandinavian	professionals in			
					Stroke Scale	the stroke unit			
					Score	and after hospital			
_			1-110			discharge			
Santana	Early home-	, ,	47/48	Not specified	Had some	Home-based	Functional Independence		There was no between-
2017	supported	67.5 (40-84)			residual	interventions	Measure (FIM)	randomisation	group difference in FIM
	discharge				disability in the	including		(2) At 6 months after	score either at 2 months
	(EHSD)				form of an initial	physiotherapy,		randomisation	or at 6 months
	service				Functional	occupational			
	(n=95)				Independence	therapy and			
					Measure (FIM)	psychology			
					of up to 100	which was			
						focused on			
						training of daily			
						activities were			
						provided by			
						professionals			
						during home			
						visits			
	Usual care	mean (range):	54/41			Usual care			
	(n=95)	66.5 (35-84)				included standard			
						care in the stroke			
						unit and standard			
						rehabilitation			
						available in the			
						region following			
						discharge			
						including no			
						further			
						rehabilitation,			
						further			
	1	<u> </u>		1	<u> </u>		1		

						ambulatory			
						rehabilitation,			
						inpatient			
						rehabilitation			
Taule	Early	median (range):	29/24	Within 1-7 days	2-26 in the	Home-based	(1) Assessment of Motor	At 3 months follow-up	There were no between-
2015	supported	74 (42-92)			NIHSS score	intervention was	and Process Skills-		group differences in the
	discharge					mainly directed	motor scale (AMPS-		change of AMPS score
	(ESD) at home					towards ADLs,	motor scale)		and mRS score at 3
	(n=53)					and function-	(2) modified Rankin		months from baseline
						specific	Scale (mRS)		
						treatment was			
						also provided by			
						a professional			
						during home			
						visits			
	Usual care	median (range):	30/21	-		Usual care might	-		
	(n=51)	74 (32-98)	30/21			involve no			
	(11-31)	74 (32-76)				follow-up			
						rehabilitation,			
						· ·			
						treatment at			
						home by a nurse,			
						physical			
						therapist, or			
						occupational			
						therapist from the			
						home			
						municipality			
						and/or treatment			
						by a private			
						practising			
						physiotherapist			
Walker	Home-based	mean (SD):	52/42	Within 1 month	Not specified	Home-based	Barthel Index (BI)	At 6 months after	There was significant
1999	occupational	73.6 (8.1)			_	occupational	, ,	randomisation	between-group difference
	therapy					therapy was			in BI score in favour of
		l		1	l	mus was	1		m 21 30010 m 10, 001 01

Wolfe   Home-based   rehabilitation   (n=23)   Usual care   mean (SD):   72 (12)   Usual care   mean (SD):   42/49   Not specified   Not specified   Not specified   Home-based   intervention was provided by professionals   during home visits   Usual care   mean (SD):   10/13   Not specified   Not specified   Not specified   Home-based   intervention was provided by professionals   during home visits   Usual care was   defined as all other services apart from therapy in home-based   other services apart from the services apart from t					1		I	1		I
Wolfe   Home-based rehabilitation (n=23)   Usual care (n=0)   75 (12)   Usual care (n=0)   76 (7.04)   Wolfe (n=0)   Wolfe		(n=94)					*			the home-based
Wolfe 2000 rehabilitation (n-23)  Usual care (n=91)  Wolfe 2000 rehabilitation (n-23)  Usual care (n=0):  Wolfe 2000 rehabilitation (n-23)  Usual care (n=0):  Wolfe 2000 rehabilitation (n-23)  Wolfe (n=0):  Wolfe 2000 rehabilitation (n-24)  Wolfe 2000 rehabilitation (n-25):  Wolfe 2000 rehabilitation (n-26):  Wolfe 2000 rehabilitation (n-27):  Wolfe 2000 rehabilitation (n-28):  Wolfe 2000 rehabilit							*			intervention group at 6
Susual care   mean (SD):   42/49							independence in			months follow-up
Usual care (n=91) 75.1 (8.6)   42/49   Usual care (n=91) 75.1 (8.6)   Wolfe 2000   Usual care (n=20) 76 (7.04)   Usual care (n=20) 76 (7.04)   Wolfe (n=20) 76 (7.04)   Wolfe (n=20)							personal and			
Usual care							instrumental			
Usual care (n=91)   75.1 (8.6)   42/49     Usual care involved existing services of routine rehabilitation (n=23)   Usual care mean (SD):   10/13   Not specified   Not specified   Home-based intervention was provided by professionals during home visits   Usual care was defined as all other services apart from therapy in home-based   Usual care wisits   Usual care was defined as all other services apart from therapy in home-based   Usual care wisits   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from therapy in home-based   Usual care was defined as all other services apart from the provided by professionals   Usual care was defined as all other services apart from the provided by professionals   Usual care was defined as all other services apart from the provided by professionals   Usual care was defined as all other services apart from the provided by professionals   Usual care was defined as all other services apart from the provided by professionals   Usual care was defined as all other services apart from the provided by professionals   Usual care was defined as all other services   Usual care was defined as all other services   Usual care was defined as all other services   Usual care was defined as all other serv							ADL by a			
Usual care (n=91) 75.1 (8.6)  Wolfe 2000 rehabilitation (n=23)  Usual care involved existing services of routine rehabilitation (n=23)  Usual care involved existing services of routine rehabilitation (n=23)  Not specified Not specified intervention was provided by professionals during home visits  Usual care (n=20) 76 (7.04)  Wolfe 2000 rehabilitation (n=23)  Usual care mean (SD): 8/12  Usual care mean (SD): 8/12  Usual care was defined as all other services apart from therapy in home-based intervention was provided by professionals during home therapy in home-based other services apart from therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professionals during home therapy in home-based intervention was provided by professiona							professional			
Usual care (n=91)   75.1 (8.6)   42/49     Usual care involved existing services of routine rehabilitation   Not specified   Not specified   Home-based intervention was provided by professionals during home visits      Usual care (n=20)   76 (7.04)   76 (7.04)   75.1 (8.6)   42/49							during home			
Wolfe   Home-based rehabilitation (n=23)   Telephone (n=20)   Teleph							visits			
Wolfe 2000   Home-based rehabilitation (n=23)   Wolfe 2000   Toutine rehabilitation (n=24)   Wolfe 2000   Toutine rehabilitation (n=25)   Wolfe 2000   Toutine rehabilitation (n=26)   Wolfe 2000   Toutine rehabilitation (n=27)   Wolfe 2000   Wolfe 2000		Usual care	mean (SD):	42/49			Usual care			
Wolfe 2000 Home-based rehabilitation (n=23) There was no between the provided provided by professionals during home visits  Usual care (n=20) 76 (7.04) Short specified (n=20) To (7.04) There was no between the provided provided by professionals during home visits and the provided by professionals defined as all other services apart from the pased intervention was provided by professionals during home visits and the provided by professionals defined as all other services apart from the pased intervention was provided by professionals during home visits and the provided by professionals defined as all other services apart from the pased intervention was provided by professionals defined as all other services apart from the pased intervention was provided by professionals during home based by professionals defined as all other services apart from the pased intervention was provided by professionals during home based by professionals during home by profession		(n=91)	75.1 (8.6)				involved existing			
Wolfe Home-based rehabilitation (n=23)  Wolfe 2000 rehabilitation (n=23)  Usual care (n=20)  The mean (SD): 76 (7.04)  Wolfe rehabilitation (n=23)  Wot specified Not specified home-based intervention was provided by professionals during home visits  Usual care was defined as all other services apart from therapy in home-based  Wolfied Barthel Index At 1 year after randomisation (MBI)  There was no between the provided by professionals during home visits  Usual care was defined as all other services apart from therapy in home-based							services of			
Wolfe 2000 Home-based rehabilitation (n=23) To (12) To (12) To (13) Not specified Provided by professionals during home visits  Usual care (n=20) To (7.04) To (7.04)  Wolfe 2000 Home-based intervention was provided by professionals during home visits  Usual care (n=20) To (7.04) To (7.04)  Wolfe 2001 Home-based intervention was provided by professionals during home visits  Usual care was defined as all other services apart from therapy in home-based							routine			
rehabilitation (n=23)  rehabilitation (n=23)  rehabilitation (n=23)  Reproved by professionals during home visits  Usual care (n=20)  rehabilitation (n=23)  Usual care mean (SD):  Reproved by professionals during home visits  Usual care was defined as all other services apart from therapy in home-based  Reproved by professionals during home visits  Usual care was defined as all other services apart from therapy in home-based							rehabilitation			
(n=23)    provided by professionals during home visits    Usual care mean (SD): (n=20) 76 (7.04)   8/12     Usual care was defined as all other services apart from therapy in home-based   1 year following home visits   1 year following home visits	Wolfe	Home-based	mean (SD):	10/13	Not specified	Not specified	Home-based	Modified Barthel Index	At 1 year after randomisation	There was no between-
Usual care mean (SD): 8/12  Usual care was defined as all other services apart from therapy in home-based	2000	rehabilitation	72 (12)				intervention was	(MBI)		group difference in MBI
Usual care mean (SD): 8/12 Usual care was defined as all other services apart from therapy in home-based		(n=23)					provided by			score at 1 year follow up
Usual care mean (SD): 8/12 Usual care was defined as all other services apart from therapy in home-based							professionals			
Usual care mean (SD): (n=20) 76 (7.04)  Usual care was defined as all other services apart from therapy in homebased							during home			
defined as all other services apart from therapy in homebased							visits			
other services apart from therapy in home- based		Usual care	mean (SD):	8/12			Usual care was			
apart from therapy in homebased		(n=20)	76 (7.04)				defined as all			
therapy in home-based							other services			
based							apart from			
							therapy in home-			
							based			
intervention							intervention			
group							group			
Azab Home-based Not specified Not specified Not specified Patients with (1) Home-based Barthel Index (BI) (1) At 4 weeks following (1) The home-based	Azab	Home-based	Not specified	Not specified	Not specified	Patients with	(1) Home-based	Barthel Index (BI)	(1) At 4 weeks following	(1) The home-based
2009 constraint- mild CIMT was CIMT (at treatment intervention gr	2009	constraint-				mild	CIMT was		CIMT (at treatment	intervention group
induced (Brunnstrom supervised endpoints) showed greater		induced				(Brunnstrom	supervised		endpoints)	showed greater
movement recovery scale and (2) At 6 months follow up improvement in		movement				recovery scale	and		(2) At 6 months follow up	improvement in BI
therapy score of 5 to 6, or encouraged score than the c		therapy				score of 5 to 6, or	encouraged			score than the control
(CIMT) BI score of 65 to by a trained group at treatm		(CIMT)				BI score of 65 to	by a trained			group at treatment

	combined with				90) to moderate	family			endpoint
	usual care				(Brunnstrom	member			(2) The home-based
	(n=20)				recovery scale	(2) Usual care			intervention group
					score of 3 to 4, or	included			showed improvement
					BI score of 30 to	physical and			in BI score at 6
					64) hemiparesis	occupational			months follow up
					of the affected	therapy			
	Usual care				upper limb	Usual care			
	(n=17)					included physical			
						and occupational			
						therapy			
Batchelor	Home-based	mean (SD):	45/26	mean (SD):	Patients with	(1) Home-based	Functional Independence	At 12 months after baseline	(1) There was no within-
2012	multifactorial	70.8 (11.4)		3.0 (1.6) months	high falls risk	exercise	Measure (FIM)	assessment	group difference of
	Falls				who either had	programme			FIM score either in
	prevention				fallen during	addressing			the home-based
	programme				hospital	balance and			intervention group or
	combined with				admission or had	mobility			in the control group
	usual care				a Step Test worse	problems			at 12 months follow
	(n=71)				leg score of less	and falls risk			up
					than 7, or a Berg	minimizatio			(2) There was no
					Balance Scale	n strategies			between-group
					score of less than	and injury			difference in FIM
					49	risk			score at 12 months
						minimizatio			follow up
						n strategies			
						were			
						performed			
						by a			
						professional			
						(2) Usual care			
						including			
						physical and			
						occupational			
						therapy was			

1	1	T		1			T		
						provided by			
						professionals			
	Usual care	mean (SD):	54/31	mean (SD):		Usual care			
	(n=85)	72.2 (9.9)		3.1 (1.9) months		including			
						physical and			
						occupational			
						therapy was			
						provided by			
						professionals			
Chumbler	Multifaceted	mean (SD):	24/1	Within 24	mean (SD):	(1) The STeleR	The motor subscale of the	(1) At 3 months (at	There was no between-
2012	stroke	67.1 (9.5)		months	6.7 (1.3) of the	intervention	Telephone Version of the	treatment endpoint)	group difference in
	telerehabilitati				Goldstein and	included home	Functional Independence	(2) At 6 months follow up	FONEFIM score either at
	on (STeleR)				Chilukuri	televisits and	Measure (FONEFIM)		treatment endpoint or at 6
	intervention				algorithm of the	telephone			months follow up
	combined with				Canadian	intervention calls			_
	usual care				Neurological	performed by a			
	(n=25)				Scale score	teletherapist			
						(2) Routine			
						Veterans Affairs			
						(VA) care was			
						provided			
	Usual care	mean (SD):	23/0		mean (SD):	Usual VA or non-			
	(n=23)	67.7 (10.0)			6.8 (1.4) of the	VA care was			
					Goldstein and	provided			
					Chilukuri				
					algorithm of the				
					Canadian				
					Neurological				
					Scale score				
Corr	Home-based	mean (range):	15/40	median (range):	Not specified	(1) The home-	Barthel Index (BI)	At 1 year after stroke	There was no between-
1995	occupational	75.1 (41-96)		11 (2-88) days	_	based	, ,		group difference in BI
	therapy			from stroke onset		intervention			score at 1 year follow up
	combined with			to stroke unit		including			
	usual care	1		admission;		teaching new			

	(n=55)			median (range):		skills; facilitating			
				50 (5-229) days		more			
				staying in stroke		independence in			
				unit		activities of daily			
						living;			
						facilitating return			
						of function;			
						enabling patients			
						to use equipment			
						supplied by other			
						agencies, was			
						provided by an			
						occupational			
						therapist during			
						home visits			
						(2) Any other			
						follow up			
						services such as			
						day-hospital			
						attendance and			
						community			
						physiotherapy			
						were provided			
	Usual care	mean (range):	26/29	median (range):		Any available			
	(n=55)	75.8 (54-94)		10 (1-52) days		services as			
				from stroke onset		required were			
				to stroke unit		provided			
				admission;					
				median (range):					
				50 (7-169) days					
				staying in stroke					
				unit					
Gilbertson	Domiciliary	median (IQR):	29/38	median (IQR):	Not specified	(1) Home-based	Barthel Index (BI)	(1) At 8 weeks (at treatment	There was no between-
2000	occupational	71 (28-89)		31 (17-57) days		intervention		endpoint)	group difference in BI

	therapy				which was	(2) At 6 months follow up	score either at treatment
	combined with				tailored to		endpoint or at 6 months
	usual care				recovery ability		follow up
	(n=67)				of self-care or		
					domestic or		
					leisure activities		
					was provided by		
					an occupational		
					therapist during		
					home visits		
					(2) Routine		
					services included		
					inpatient		
					multidisciplinary		
					rehabilitation, a		
					predischarge		
					home visit for		
					selected patients,		
					the provision of		
					support services		
					and equipment,		
					regular		
					multidisciplinary		
					review at a stroke		
					clinic, and		
					selected patients		
					referred to a		
					medical day		
					hospital		
Γ	Usual care	median (IQR):	31/40	median (IQR):	Routine services		
	(n=71)	71 (31-89)		23 (13-66) days	included		
					inpatient		
					multidisciplinary		
					rehabilitation, a		

		ı					T	1	
						predischarge			
						home visit for			
						selected patients,			
						the provision of			
						support services			
						and equipment,			
						regular			
						multidisciplinary			
						review at a stroke			
						clinic, and			
						selected patients			
						referred to a			
						medical day			
						hospital			
Goldberg	Home-based,	median (range):	10/11	Within 2-3	Patients without	(1) Home-based	Functional Independence	(1) At 6 months	No within-group or
1997	case-managed	72 (65-84)		months	severe pre-	intervention	Measure (FIM)	(2) At 1 year	between-group statistical
	care combined					including			analysis
	with usual				comorbid	therapeutic			
	care				conditions	recreation, social			
	(n=21)				sufficient to	work, and			
					impact	psychology			
					significantly on	consultation was			
					their capacity to	provided by a			
					recover from the	treatment team			
					qualifying stroke	during home			
						visits			
						(2) Standard			
						outpatient			
						follow-up			
						services included			
						routine medical			
						follow-up visits			
						and, when			
						indicated,			
	İ	l				,			

						months was provided for 12 months			
Ricauda 2004	Home hospitalization service combined with usual care (n=60)	median (IQR): 83 (78-89)	24/37	Within 24 hours	median (IQR): 24 (22-26.5) of NIHSS score	(1) The home-	Functional Independence Measure (FIM)	At 6 months	(1) Both the home-based intervention group and the control group showed improvement in FIM score at 6 months follow up (2) There was no between-group difference in FIM score at 6 months follow up

						therapists				
	Usual care	median (IQR):	30/29		median (IQR):	Routine hospital				
	(n=60)	80 (74-87)			24 (22-26.5) of	rehabilitation				
					NIHSS score	service was				
						provided by				
						physical				
						therapists				
Rudd	Early	mean (SD):	92/75	mean (SD):	Not specified	(1) Home-based	Modified	Barthel Inde	At 12 months after stroke	There was no between-
1997	discharge with	70 (11)		22 (25) days		intervention	(MBI)			group difference in MBI
	home			staying in		including				score at 12 months follow
	rehabilitation			hospital before		physiotherap				up
	combined with			randomisation		у,				
	usual care					occupational				
	(n=167)					therapy and				
						speech				
						therapy was				
						provided by				
						professionals				
						during home				
						visits				
						(2) Conventiona				
						l care				
						included in-				
						patient				
						treatment,				
						discharge				
						planning, and				
						outpatient care				
	Usual care	mean (SD):	93/71	mean (SD):		Conventional				
	(n=164)	72 (12)	93/11	mean (SD): 25 (30) days		care included in-				
	(11-104)	12 (12)		staying in		patient treatment,				
				hospital before		discharge				
				nospitai before		discharge			_1	

				randomisation		planning, and outpatient care			
Wong 2015	4-week transitional care programme (TCP) with home-based intervention combined with usual care (n=54)	mean (SD): 67.5 (11.6)	20/34	Not specified	Patients with slight to moderate neurological deficits (NIHSS score ≥4 or < 16) and with slight to moderate level of disability (mRS score ≥2 to ≤4)	(1) TCP included home-based intervention consisting of management and prevention of stroke recurrence; symptoms assessment and management; enhancing physical function: self-care abilities and exercise; healthy behaviour: adherence to medication and diet; building resilience: connections with the self, family, social life and a Higher	Modified Barthel Ind (MBI)	ex (1) At 4 weeks after discharge (at treatment endpoint) (2) At 8 weeks after discharge	intervention group and the control group

Being; and emotion management (2) Routine hospital-based physical	
management (2) Routine hospital- based	
(2) Routine hospital- based	
hospital- based	
based	
physical	
training	
programme	
was provided	
within the	
first 3 weeks	
after hospital	
discharge	
Usual care mean (SD): 20/34 Routine hospital-	
(n=54) 71.5 (11.6) based physical	
training	
programme was	
provided within	
the first 3 weeks	
after hospital	
discharge	
Koç Home-based Not specified Not specified 30-90 days Patients with Home-based Barthel Index (BI) (1) At 4 weeks	(1) The home-based
2015 exercise baseline Barthel intervention (2) At 8 weeks	intervention group
index (BI) scores including (3) At 12 week	s (at showed improvement
of 60–80 who stretching and treatment endpoint	nt) in BI score over time
were ambulatory   flexibility	(2) The control group
with supervision exercises,	showed no
and/or an assistive and	improvement in BI
assistive device resistive	score over time
exercises, active-	(3) The home-based
assisted range of	intervention group
motion exercises,	showed higher BI
and progressive	score than the control

	No intervention (n=37)					walking programme and relaxation N/A			group over time
Lin 2004	Home-based physical therapy programme (n=9)	mean (SD): 61.4 (11.2)	7/2	More than 1 year	Severe to moderate residual disability with BI score 5–14	Home-based intervention mainly consisted of motor facilitation, postural control training, functional ambulation training with gait correction, and ADL training	Barthel Index (BI)	At 11 weeks (at treatment endpoint)	The intervention group showed greater improvement in BI score than the control group
	No intervention (n=10)	mean (SD): 62.8 (9.4)	6/4			N/A			
Wade 1992	Home-based physiotherapy intervention (n=49)	mean (SD): 72.3 (9.7)	27/22	More than 1 year	Patients had mobility problems more than one year after stroke: they used a walking or mobility aid, other than just a stick; had had a fall in the previous three months; were	The home-based intervention including exercises to improve the walking and balance and ADL practice was provided by a physiotherapist during home visits	Barthel Index (BI)	At 3 months (at treatment endpoint)	There was no between- group difference in BI score at treatment endpoint
	No	mean (SD):	20/25		unable to manage	N/A			

	intervention	72.0 (10.6)			stairs, slopes, or				
	(n=45)	72.0 (10.0)			uneven surfaces				
	(11-43)								
					independently; or				
					had a slow gait				
					speed >10 s over				
					10m if under				
					60,>12.5 s if 60-				
					69, >16.5 s if				
					over 70				
Walker	Home-based	mean (SD):	9/6	6 months	Patients with	Home-based	Rivermead Activities of	`	(1) The home-based
1996	dressing	65.9 (8.16)			dressing	intervention	Daily Living scales (self-	endpoint)	intervention group
	practice				problems	involving	care)		showed improvement
	(n=15)					teaching patients			in Rivermead
						and carers			Activities of Daily
						appropriate			Living scales (self-
						techniques such			care) score at
						as dressing the			treatment endpoint
						affected limb			(2) The control group
						first, energy			showed no
						conservation, the			improvement in
						use of red thread			Rivermead Activities
						to overcome			of Daily Living
						perceptual			scales (self-care)
						difficulties and to			score at treatment
						mark alignment			endpoint
						of buttons, and			(3) The home-based
						advice on choice			intervention group
						of clothing, was			showed greater
						provided by an			improvement in
						occupational			Rivermead Activities
						therapist during			of Daily Living
						home visits			scales (self-care)
	No	mean (SD):	7/8	1		N/A	1		score than the control
	intervention	70.2 (10.35)							group at treatment
L		1 . ( , , , , , , , , , , , , , , , , , ,	1	I.	l .	1	1	l	<i>U</i> 1

	(n=15)								endpoint
Wang	Caregiver-	mean (SD):	13/12	More than 6	Patients with	Home	Barthel Index (BI)	At 12 weeks (at treatment	(1) The home-based
2015	mediated,	62.0 (9.5)		months	mild to moderate	intervention was		endpoint)	intervention group
	home-based				disability	designed to			showed improvement
	intervention				(Brunnstrom	improve patients'			in BI score at
	(CHI)				recovery stages	body functions			treatment endpoint
	(n=25)				III-V)	and structural			(2) The control group
						components; to			showed no
						improve patients'			improvement in BI
						ability to			score at treatment
						undertake			endpoint
						everyday			(3) The home-based
						activities within			intervention group
						their living			showed greater
						environments			improvement in BI
						using task-			score than the control
						specific			group at treatment
						restorative and			endpoint
						compensatory			
						training methods;			
						and to help the			
						patients			
						reintegrate into			
						the society by			
						participating in			
						restorative			
						outdoor leisure			
						activities			
	No	mean (SD):	17/9			N/A			
	intervention	65.4 (10.6)							
	(n=26)								

N/A: Not applicable

Table 2 Summary of intervention details in individual studies

Author	Brief name	Why	What	What	Who provided	How	Where	When and	Tailoring	Modifications	Strategies to	Extent of
Year			(materials)	(procedures)				how much		of intervention	improve or	intervention
										throughout	maintain	on fidelity
										trial	intervention	
											fidelity	

Asano	Progressive	Tele-	Not specified	(1)	Participants	(1)	A research	Online	exe	ercises	(1)	Training	(1)	Training of	The	Not described	Adherence of	50/61
2021	rehabilitation	rehabilitation			and their		assistant	and v	ideo	calls		of the use		the use of	difficulty		therapy was	completed the
	exercises	can enable			caregivers		trained the use	during	a	tele-		of		hardware	level and		recorded by	3-month
	through tele-	therapists to			were		of hardware	consulta	ation			hardware		and	minimum		the subject in	assessment
	rehabilitation	work with			trained to		and software:					and		software	range of		a diary to	
		and evaluate			use the	(2)	A tele-					software:		before	motion		record the	
		their patients			hardware		therapist					in acute		discharge	desired		number of	
		remotely and			and		prescribed the					hospital		or after	for each		minutes	
		the patients			software		progressive					before		discharge	exercise		subject spent	
		to perform		(2)	Participants		rehabilitation					discharge		from acute	prescribe		each day.	
		rehabilitation			received		exercises and					or in		hospital: 1-	d is		And the tele-	
		in the			progressive		provided tele-					homes		3 sessions	determine		therapist	
		comfort of			rehabilitatio		consultations					after		with each	d by the		checked the	
		their own			n exercises							discharge		session	tele-		entering data	
		home and at			including						(2)	The		being an	therapist		during tele-	
		their own			upper limb							progressi		hour long	who will		consultations	
		convenience			strengtheni							ve	(2)	The	assess			
					ng, lower							rehabilita		progressiv	and			
					limb							tion		e	inform			
					strengtheni							exercises		rehabilitati	the			
					ng, seated							took		on	patient of			
					balance							place in		exercises	the			
					exercise,							participa		were	change			
					standing							nts' home		provided in	before			
					balance									participant	increasin			
					exercise									s' home	g the			
					and training									after	difficulty			
					of									discharge	level			
					functional									for three				
					activities									months,				
														with tele-				
														consultatio				
														ns once a				
														week				

Baskett	Home-based	Outpatient	Not specified	(1)	Advice on	(1)	A	(1)	Advice	was	At patients'	(1) Advice	Not	Not described	The subj	ect or	46/50
1999	self-directed	therapy			the self-		physiotherapis		provided		home	was	described		caregive		completed the
	exercises	might			directed		t and an		during	home		provided			asked	to	3-month
		disempower			therapy		occupational		visits			by			record	the	assessment
		the patient			programme		therapist	(2)	Home-ba	sed		profession			type	and	
		and caregiver		(2)	Self-		provided the		intervent	ions		als once a			duration	of	
		from			directed		advice		for p	atients		week for as			activities	they	
		believing that			exercises	(2)	Home-based		were pr	ovided		long as			achieved	each	
		they can be			aiming at		intervention		by them	selves		judged			day		
		actively			improve the		for patients		with or v			necessary,					
		involved in			ability of		was mediated		the hel	_		or for a					
		their own			ADL were		by themselves		caregive	s at		maximum					
		rehabilitation			prescribed		or caregivers		home			of 13					
		programme.			for patients							weeks					
		Furthermore,			and their							(2) Patients					
		in the			caregivers							was					
		hospital										encourage					
		setting, it is										d to					
		often										attempt the					
		difficult to										prescribed					
		plan ongoing										home-					
		therapy										based self-					
		without a										directed					
		detailed										exercises					
		understandin										programm					
		g of and										e several					
		continuing										times a day					
		supervision															
		within the															
		home															
		environment.															
		Therefore,															
		this study															
		investigated															

		the feasibility of the home- based self- directed exercises										
Björkda	Home-based	programme Aiming to	Not specified	Home-based	A physiotherapist	Home-based	At patients'	9 hours of	Individua	Not described	Not described	30/30
hl	intervention	Aiming to evaluate if	Not specified	intervention	and an	interventions for	-	home-based	lly	Not described	Not described	completed the
2006	intervention	three weeks		which was focus	occupational	patients were	nome	training per	tailored			3-week
2000		of		on activities in	therapist provided	^		week for three	training,			assessment
		rehabilitation		patients' natural	the home-based	professionals		weeks was	based on			assessment
		in the home		context, varing	intervention	during home visits		provided after	the			
		setting of		from personal				discharge from	patient's			
		younger		care to shopping				the	needs and			
		patients with		and leisure				rehabilitation	desires			
		stroke would		activities was				ward	was			
		improve		provided					provided			
		activity to a										
		larger extent										
		than ordinary										
		outpatient										
		rehabilitation										
		at the clinic										
		and facilitate										
		the rehabilitation										
		process										
Chen	Home-based	Aiming to	Not specified	(1) Home-	Therapists	(1) Instructions	At patients'	(1) Instruction	Individua	Not described	The	26/27
2017	telesupervisi	evaluate the	1	based	provided	and	home	s and	lized		caregivers	completed the
	ng	efficacy of a		intervention	instructions and	demonstrations		demonstrat	physical		were asked to	12-week
	rehabilitation	telerehabilita		including	demonstrations of	of the home-		ions of the	exercise		keep training	assessment
		tion system,		physical	the home-based	based		home-	plan was		logs in the	
		which		exercises	intervention and	intervention		based	provided		record plate	
		integrated		with ADL	tele-supervision	were provided		interventio			of the system	

electromyogr	training and	by	n were	that faithfully
aphy-	the ETNS	professionals	provided	recorded the
triggered	therapy was	face to face	until the	survivors'
neuromuscul	prescribed	during home	participant	daily training
ar	and taught	visits	s or the	
stimulation	by	(2) Home-based	caregivers	
(ETNS)	professiona	interventions	could	
rehabilitation	ls	were	manage it	
, detection of	(2) The home-	performed by	without the	
physiological	based	patients	help of the	
parameters,	intervention	themselves	therapists	
medical	was	with or without	(2) The	
history	performed	the help of	physical	
records, data	by	caregivers at	exercises	
storage, and	participants	home	with ADL	
high-quality	and the		training	
video-audio	caregivers		were	
system on	with the		conducted	
physical	tele-		for 1 hour,	
function for	supervision		twice in a	
stroke	by		working	
survivors	professiona		day for 12	
	ls		weeks, a	
			total of 60	
			sessions	
			(3) The ETNS	
			was	
			conducted	
			for 20	
			minutes,	
			twice in a	
			working	
			day for 12	
			weeks, a	

								total of 60				
								sessions				
Chen	Home-based	Home-based	Not specified	(1) Home-	Therapists	(1) Instructions	At patients'		Individua	Not described	The	26/26
2020	motor	telerehabilita	rvorspecifica	based	provided	and	home	s and	lized	1 (or deserred	caregivers	completed the
2020	training	tion (TR) has		intervention	instructions and	demonstrations	nome	demonstrat	physical		were asked to	12-week
	telerehabilita	been		including	demonstrations of	of the home-		ions of the	exercise		keep training	assessment
	tion	indicated that		physical	the home-based	based		home-	plan was		logs in the	
		TR		exercises	intervention and	intervention		based	provided		record plate	
		approaches		with ADL	tele-supervision	were provided		interventio			of the system	
		can be as		training and	1	by		n were			that faithfully	
		efficacious as		the ETNS		professionals		provided			recorded the	
		conventional		therapy was		face to face		until the			survivors'	
		rehabilitation		prescribed		during home		participant			daily training	
		(CR) in		and taught		visits		s or the				
		improving		by		(2) Home-based		caregivers				
		activities of		professiona		interventions		could				
		daily living		ls		were		manage it				
		(ADL), and		(2) The home-		performed by		without the				
		enhanced the		based		patients		help of the				
		compliance		intervention		themselves		therapists				
		of		was		with or without		(2) The				
		rehabilitation		performed		the help of		physical				
		training. The		by		caregivers at		exercises				
		study aimed		participants		home		with ADL				
		to determine		and the				training				
		the effects of		caregivers				were				
		a 12-week		with the				conducted				
		home-based		tele-				for 1 hour,				
		motor		supervision				twice in a				
		training TR		by				working				
		procedure in		professiona				day for 12				
		subcortical		ls				weeks, a				
		stroke						total of 60				
		patients with						sessions				

		motor dysfunction						(3) The ETNS was conducted for 20 minutes, twice in a				
								working day for 12 weeks, a total of 60 sessions				
Gladma n 1993; Gladma n 1994	Domiciliary- based rehabilitation	Aiming to determine whether stroke patients would make greater improvement s in ADL after discharge from hospital	Not specified	Home-based intervention including physiotherapy and occupational therapy	Two physiotherapists and one occupational therapist provided the domiciliary service	Home-based intervention was performed professionals during home visits	At patients' home	The domiciliary rehabilitation service was provided for up to six months	Not described	Not described	Not described	157/165 completed the domiciliary rehabilitation
Han 2020	Home-based reablement programme	There is evidence supporting that the reablement intervention leads to significant improvement s in ADL for older adults.	Not specified	Home-based intervention of ADL training	One occupational therapist provided the home-based intervention		At patients' home	The home-based intervention was provided 50 minutes each time, once a week for 6 weeks	Not described	Not described	Not described	12/12 completed the 6-weeks assessment

		However,										
		evidence on										
		the										
		effectiveness										
		of										
		reablement										
		for patients										
		with stroke is										
		limited. The										
		study aimed										
		to investigate										
		the effects of										
		reablement in										
		patients with										
		stroke from										
		the 3										
		concepts of										
		ADL										
Hesse	Intermittent	_	Not specified	(1) Intermittent		(1) Home-based	_	(1) The home-	Individua	Not described	The patients	
2011	high-	evaluate		high-	physiotherapis	intervention	home	based	lized self-		and their	_
	intensity	whether		intensity	ts provided the	was performed		interventio	therapy		caregivers	12-months
	home-based	patients		home-based	home-based	professionals		n was	program		kept a diary,	home-based
	physiotherap	undergoing		intervention	intervention	during home		provided in	me was		in addition the	intervention
	y programme	the pulsed		of	(2) Self-therapy	visits		three two-	prescribe		therapists	
		high-		physiothera	was	(2) Self-therapy		month	d		phoned the	
		intensity		py based on	performed by	programme		blocks			patients every	
		treatment		the Bobath	patients	was performed		(months 1			14 days	
		design would		approach	themselves	by patients		+ 2,			during self-	
		have better		and the	and their	themselves and		months 5 +			therapy	
		motor		motor	caregivers	their caregivers		6, months			period	
		functions in		relearning		at home		9 + 10),				
		one year		programme				consisting				
		compared to		was				of four				
		those		provided to				therapy				

	discharge	rehabilitation			community health	were prov	vided		treatment				did not
	(ESD) to	results after			team, consisting of	during l	home		period was				comply
	home with	ESD to			a nurse, a	visits			five weeks				with the
	home-based	rehabilitation			physiotherapist				and				schedule
	intervention	as usual, and			and an				maximally				d
		to investigate			occupational				four hours				treatment
		the effect of			therapist provided				per day,				(2) 85/104
		community			the home-based				five days a				complete
		treatment			intervention				week				d the
		given in two							(2) During the				home-
		different							treatment				based
		settings;							period,				interventi
		either in a							team				on
		day unit or in							members				
		the patients'							were				
		homes							present				
									three days				
									a week,				
									and the last				
									two the				
									days of the				
									week the				
									patients				
									trained by				
									themselves				
									after				
									instruction				
									s from the				
									team				
Kalra	Domiciliary	Aimed to	Not specified	Not specified	A specialist stroke	Home-based		At patients'	The home-	Individua	Not described	Not described	144/153
2000	stroke care	compare the			team provided the	interventions	were	home	based	lised care			(including
		efficacy of			home-based	provided du	uring		intervention	plan			149
		stroke unit,			intervention	home visits			was provided	outlining			confirmed
		stroke team,							for a maximum	activities			stroke and 10
	•			-	•		1			-	-		

		and domiciliary stroke care in reducing mortality, dependence, and institutionali sation in patients with moderately severe strokes						of 3 months	and the objectives of treatment were provided			confirmed no- stroke) completed the 12-months assessment
Özdemir 2001	Home-based rehabilitation	Aimed to test the hypothesis that medical rehabilitation gains can be obtained through home-based rehabilitation services with professional staff supervision of family members	Not specified	(1) Instructions from professiona I were provided (2) Home-based intervention including convention al exercises and provision of splints, orthoses and devices were provided	(1) A rehabilitation physician and a physiotherapis t provided the instructions for family caregivers (2) Family caregivers performed the home-based intervention to patients	(1) Instructions were provided during home visits (2) Home-based interventions were provided by patients and their family caregivers at home	At patients' home	(1) The home-based intervention was provided for at least 2 hours a day, 7 days a week (2) The mean rehabilitati on period at home was 64 days (range, 29–150 days)	Not described	Not described	Not described	Not specified
Pandian	Family-led,	The aim of	A culturally	Home-based	(1) A	Home-based	At patients'	Caregivers	Not	Not described	Not described	44/50
2015	trained	this pilot	appropriate,	intervention	physiotherapis	interventions were	home	performed the	described			completed the
	caregiver-	study was to	simple,	including	t prescribed	provided by		home-based				6-months

	delivered,	determine the	pictorial	positioning,		the home-	patients' caregivers		intervention				assessment
	home-based	feasibility of	'manual'	transfers,		based	at home		when the				
	rehabilitation	a multicenter,	covering key	mobility, task-		intervention			patients were				
	intervention	randomized,	exercises	orientated	(2)	Patients'			discharged				
		controlled	relevant to	training	, ,	caregivers			home				
		trial in India	activities of	(particularly		delivered the							
		of a family-	daily living	walking, upper-		home-based							
		led, trained	was provided	limb, and self-		intervention to							
		caregiver-	for patients'	care tasks) was		patients							
		delivered,	caregivers	provided		•							
		home-based		_									
		rehabilitation											
		intervention											
		vs. routine											
		care											
Redzuan	Video-based	Aiming to	A self-	Home-based	(1)	Home-based	(1) Home-based	At patients'	Upon	An	Not described	Caregivers	44/53
2012	therapy	evaluate the	instructional	self-		self-	self-	home	discharge,	investigat		and/or	completed the
	programme	effectiveness	audiovisual	instructional		instructional	instructional		caregivers	or and the		patients were	3-months
	at home	of an	DVD of	intervention		intervention	intervention		and/or patients	therapist		encouraged to	assessment
		intervention	standardized	including		was	was prescribed		were	would go		do the	
		using video	rehabilitatio	patient		prescribed and	and taught to		encouraged to	through		exercises	
		to deliver	n procedures	positioning and		taught to	patients and/or		do the exercises	the video		along with the	
		therapy at	and patient	handling; bed		patients and/or	their caregivers		along with the	content		video as often	
		home for	handling	mobility;		their	by therapists		video as often	with each		as possible	
		patients with	techniques	passive range of		caregivers by	face to face		as possible	patient		and were	
		stroke	was provided	motion		therapists	(2) Home-based			and		asked to	
				exercises,	(2)	Home-based	self-			determine		record their	
				stretching, and		self-	instructional			the		exercises in a	
				strengthening of		instructional	intervention			appropria		diary	
				the upper limbs		intervention	was performed			te			
				and the lower		was	by patients			sections			
				limbs; transfer		performed by	and/or their			and/or			
				techniques from		patients and/or	caregivers with			exercises			
				bed to		their	the guidance of			and			

				wheelchair and vice versa, and wheelchair into	caregivers	a video at home			emphasiz e the important			
				the car and vice					parts of			
				versa; and					the video			
				activities of					according			
				daily living					to the			
									patient's			
									stroke			
									severity			
									and			
									resulting			
									impairme			
									nt			
Roderic	Domiciliary	Aiming to	Not specified	Not specified	Home-based	Home-based	At patients'	The home-	Not	Not described	Not described	54/66
k	rehabilitation	compare the			intervention was	intervention was	home	based .	described			completed the
2001	service	effectiveness			provided by a			intervention				6-months
		and costs of a			physiotherapist	professionals		was provided				assessment
		new			and an	during home visits		until maximum				
		domiciliary rehabilitation			occupational			potential for				
		service for			herapists			recovery was reached				
		elderly stroke						reactied				
		patients with										
		geriatric day-										
		hospital care										
Taule	Early	Current	Not specified	Home-based	An occupational	Home-based	At patients'	(1) ESD	Not	Not described	Not described	39/53
2015	supported	evidence		intervention was	therapist and/or a		home	interventio	described			completed the
	discharge	supports		mainly directed	physiotherapist	provided during		n was				3 months
	(ESD) at	ESD from		towards ADLs,		home visits		provided				assessment
	home	hospital to		and function-	home-based			during				
		home after		specific	intervention			hospitaliza				
		acute		treatment was				tion and at				
		hospital		also offered				home				

patients have demonstrated benefits in independence. However, the influence of different rehabilitation models on the patients' ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation: ESD at home and traditional		treatment as					(2) A home				
demonstrated benefits in independenc e. However, the influence of different rehabilitation models on the patients' ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional											
benefits in independence e. However, the influence of different rehabilitation models on the patients' ADL ability is still scarcely explored.  This study aimed to compare three models of rehabilitation:  : ESD in a day unit, FSD at home and traditional		•									
independenc c. However, the influence of different rehabilitation models on the patients' ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional							_				
e. However, the influence of different rehabilitation models on the patients' ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional											
the influence of different rehabilitation models on the patients' ADL ability is still scarcely explored.  This study aimed to compare three models of rehabilitation:  ESD in a day unit, ESD at home and traditional		_					_				
of different rehabilitation models on the patients' ADL ability is still scarcely explored.  This study aimed to compare three models of rehabilitation:  ESD in a day unit, ESD at home and traditional							three days,				
rehabilitation models on the patients' ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		of different									
the patients' ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		rehabilitation					for a				
ADL ability is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		models on					maximum				
is still scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		the patients'					of five				
scarcely explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		ADL ability					weeks after				
explored. This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		is still					the home				
This study aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		scarcely					visit				
aimed to compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		explored.									
compare three models of rehabilitation : ESD in a day unit, ESD at home and traditional		This study									
three models of rehabilitation : ESD in a day unit, ESD at home and traditional		aimed to									
of rehabilitation : ESD in a day unit, ESD at home and traditional		compare									
rehabilitation : ESD in a day unit, ESD at home and traditional		three models									
: ESD in a day unit, ESD at home and traditional		of									
day unit, ESD at home and traditional		rehabilitation									
ESD at home and traditional											
and traditional		day unit,									
traditional											
treatment in											
the limit the li											
municipality   munici											
Thorsen Early Aiming to Not specified Home-based Two physical Home-based At patients' The home- The Not described The duration (1) 41/41						_			Not described		
	* *			_		home					complete
	_				_						d the 3
				_	home visits						months
2001; continued rehabilitation context-oriented speech therapist approximately on was protocol by assessment	2001; continued	rehabilitation	context-oriented	speech therapist			approximately	on was		protocol by	assessme

von	rehabilitation	model as		approach, which	provided	the			3 to 4 months in	tailored		the therapists.	nt
Koch	at home	developed at		implies that the	home-based				duration. The	for each		Patients were	(2) 40/41
2000;		the		patient performs	intervention				frequency of	patient		asked to keep	complete
Widén		Department		guided,					therapy			diaries	d the 6
Holmqvi		of Neurology		supervised, or					contacts for the			between	months
st		was more		self-directed					patients			therapy	assessme
1998		effective		activities in a					receiving			sessions on	nt
		and/or		functional and					rehabilitation at			time and type	(3) 39/41
		resource		familiar context,					home was			of training	complete
		efficient than		was provided					decided by the				d the 12
		current,							providing				months
		organization							therapist in				assessme
		ally diverse							consultation				nt
		rehabilitation							with the patient				(4) 30/41
		in a hospital							and his or her				complete
		or day care or							family. The				d the 5
		through							frequency of				years
		outpatient							home visits was				assessme
		care							gradually				nt
									reduced until				
									the therapist				
									discharged the				
									patient				
Young	Home	Aiming to	Not specified	Not specified		five	Home-based	At patients'	Not specified	Not	Not described	Not described	56/63
1992	physiotherap	compare the			experienced		intervention was	home		described			completed the
	У	effectiveness			community		provided during						6 months
		of day			physiotherapist		home visits						assessment
		hospital			*	the							
		attendance			home-based								
		with home			intervention								
		physiotherap											
		y for stroke											
		patients to											
		determine											

		which										
		service										
		produces										
		greater										
		functional										
		and social										
		improvement										
		for the										
		patient,										
		reduces										
		emotional										
		stress for the										
		caregiver,										
		and lessens										
		the need for										
		community										
		support										
Barzel	Home-based	Home CIMT	Not specified	(1) Patients	(1) A physical or	(1) 2 home visits to	At patients'	(1) 2 home	Exercises	Not described	The non-	82/85
2015	constraint-	is a modified		received	occupational	provide	home	visits of	were		professional	completed the
	induced	form of				*	поше	VISITS OI	***************************************		_	-
				information	therapist	information	nome	50-60 min	adapted		coach	home CIMT
	movement	CIMT that		and	provided	information and instruction	nome	50-60 min in the first	adapted to the		coach  maintained a	-
	therapy	CIMT that reduces the		and instruction	provided information	information and instruction (2) 3 home visits to	none	50-60 min in the first week	adapted to the patient's		coach  maintained a training diary	-
		CIMT that reduces the need for		and instruction of home	provided information and	information and instruction (2) 3 home visits to supervise and	nome	50-60 min in the first week (2) 3 home	adapted to the		coach  maintained a training diary to document	-
	therapy	CIMT that reduces the need for professional		and instruction of home CIMT	provided information and instruction of	information and instruction (2) 3 home visits to supervise and adjust	nome	50-60 min in the first week (2) 3 home visits of	adapted to the patient's		coach  maintained a training diary to document the time per	-
	therapy	CIMT that reduces the need for professional assistance in		and instruction of home	provided information and instruction of home CIMT	information and instruction (2) 3 home visits to supervise and adjust exercises and	nome	50-60 min in the first week (2) 3 home visits of 50-60 min	adapted to the patient's		coach  maintained a training diary to document the time per exercise	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory		and instruction of home CIMT (2) Patients were	provided information and instruction of home CIMT and provided	information and instruction (2) 3 home visits to supervise and adjust exercises and practice	nome	50-60 min in the first week (2) 3 home visits of 50-60 min in the next	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training		and instruction of home CIMT (2) Patients were supervised	provided information and instruction of home CIMT and provided supervision	information and instruction (2) 3 home visits to supervise and adjust exercises and practice (3) Face-to-face		50-60 min in the first week (2) 3 home visits of 50-60 min in the next 3 weeks	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch),	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training the increased		and instruction of home CIMT (2) Patients were supervised by a	provided information and instruction of home CIMT and provided supervision and	information and instruction (2) 3 home visits to supervise and adjust exercises and practice (3) Face-to-face coaching of		50-60 min in the first week  (2) 3 home visits of 50-60 min in the next 3 weeks  (3) Home	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch), the number of	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training the increased use of the		and instruction of home CIMT (2) Patients were supervised by a professiona	provided information and instruction of home CIMT and provided supervision and adjustment	information and instruction (2) 3 home visits to supervise and adjust exercises and practice (3) Face-to-face		50-60 min in the first week (2) 3 home visits of 50-60 min in the next 3 weeks	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch), the number of repetitions,	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training the increased use of the stroke-		and instruction of home CIMT (2) Patients were supervised by a professiona l who	provided information and instruction of home CIMT and provided supervision and adjustment through	information and instruction  (2) 3 home visits to supervise and adjust exercises and practice  (3) Face-to-face coaching of home CIMT by non-		50-60 min in the first week  (2) 3 home visits of 50-60 min in the next 3 weeks  (3) Home CIMT was recommen	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch), the number of repetitions, and the time	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training the increased use of the stroke-affected arm		and instruction of home CIMT (2) Patients were supervised by a professiona 1 who solved	provided information and instruction of home CIMT and provided supervision and adjustment through problem	information and instruction (2) 3 home visits to supervise and adjust exercises and practice (3) Face-to-face coaching of home CIMT by		50-60 min in the first week  (2) 3 home visits of 50-60 min in the next 3 weeks  (3) Home CIMT was recommen ded for 2 h	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch), the number of repetitions,	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training the increased use of the stroke-affected arm in daily life		and instruction of home CIMT (2) Patients were supervised by a professiona 1 who solved problems	provided information and instruction of home CIMT and provided supervision and adjustment through problem solving	information and instruction  (2) 3 home visits to supervise and adjust exercises and practice  (3) Face-to-face coaching of home CIMT by non-		50-60 min in the first week  (2) 3 home visits of 50-60 min in the next 3 weeks  (3) Home CIMT was recommen ded for 2 h each	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch), the number of repetitions, and the time	-
	therapy	CIMT that reduces the need for professional assistance in ambulatory care, training the increased use of the stroke-affected arm		and instruction of home CIMT (2) Patients were supervised by a professiona 1 who solved	provided information and instruction of home CIMT and provided supervision and adjustment through problem	information and instruction  (2) 3 home visits to supervise and adjust exercises and practice  (3) Face-to-face coaching of home CIMT by non-		50-60 min in the first week  (2) 3 home visits of 50-60 min in the next 3 weeks  (3) Home CIMT was recommen ded for 2 h	adapted to the patient's		coach  maintained a training diary to document the time per exercise (using a stopwatch), the number of repetitions, and the time	-

		home		exercises	by a non-			of practice				
		environment		and practice	professional			in 20 days				
				which were	(eg, family							
				relevant to	member)							
				everyday								
				life with								
				special								
				focus on								
				activities of								
				daily living								
				(ADL)								
				(3) Patients								
				were								
				instructed								
				to do home								
				CIMT								
Chaiyaw	Home-based	The	Standard	(1) Individual	A physical	Intervention was	-	(1) Individual	Individua	Not described	(1) The	(1) 30/30
at	individual's	programme	materials on	counseling,	therapist provided	1 -	home	counseling	1		duration	complete
2012	exercise	would be		which	the individual	home visits		was	counselin		and type	d the
	programme	able to	audiovisual	focused on	counseling and			provided	g, which		of	home-
		improve the		education,	home-based			before	focused		therapy	based
		ADL and		applying	rehabilitation			home-	on		were	rehabilita
		function,	n	information				based	education		recorded	tion
		decrease	procedures:	learned in				rehabilitati	, applying		on a case	program
		disability and	-	practical				on	informati		report	me
		increase	exercise,	situations,				(2) Home-	on		form by	(2) Complia
		quality of life		and solving				based	learned in		the	nce with
			exercise,	problems				rehabilitati	practical		therapist	the
			resistance	was offered				on was	situations		(2) Patients	interventi
			exercise, and	to the				provided	, and		or .	on, as
			ADL	caregiver if				once a	solving		caregiver	indicated
				needed				month for	problems		s were	by daily
				(2) The				6 months;	occurring		asked to	records
				intervention				Each	at home		keep	was high

				strategy				home-			diaries	
				included				based			between	
				exercises				rehabilitati			therapy	
				and ADL				on lasted			sessions	
				practice				approximat			on the	
				practice				ely 1 h			time and	
								Cry 1 ii			time and type of	
											training	
Chaiyaw	Individual's	Because	Standard	(1) Individual	A physical	Intervention was	At patients'	(1) Individual	Individua	Not described	(1) The	(1) 30/30
at	home-based	inpatient	materials on	counseling,	therapist provided		•	counseling	1	Not described	duration	complete
2009	exercise	rehabilitation	an	which		home visits	nome	was	counselin		and type	d the
2007	programme	programmes	audiovisual	focused on	counseling and	nome visits		provided	g, which		of	home-
	programme	in Thailand	CD of	education,	home-based			before	focused		therapy	based
			rehabilitatio	applying	rehabilitation			home-	on		were	rehabilita
		widely	n	information	Tendomation			based	education		recorded	tion
		available, the		learned in				rehabilitati	, applying		on a case	program
		demand for	_	practical				on	informati		report	me
		home	exercise,	situations,				(2) Home-	on		form by	
		rehabilitation	active	and solving				based	learned in		the	nce with
		is increasing.		problems				rehabilitati	practical		therapist	the
		Therefore, a	resistance	was offered				on was	situations		(2) Patients	interventi
		model for		to the				provided	, and		or	on (as
		effective	ADL	caregiver if				once a			caregiver	indicated
		home	1122	needed				month for	problems		s were	by daily
		rehabilitation		(2) The				3 months;	occurring		asked to	records)
		for stroke		intervention				Each	at home		keep	at one,
		patients will		strategy				home-			diaries	two, and
		help improve		included				based			between	three
		stroke care		exercises				rehabilitati			therapy	months
				and ADL				on lasted			sessions	was 94%,
				practice				approximat			on the	95%, and
				•				ely 1 h			time and	95%
											type of	
											training	
	1	1	ı	l	I.	1	1	ı	I.	1		·

Chen	Nurse-	Exercise	Not specified	(1) Environme	An	advanced	Environmenta	al	At	(1) During the	The	Not described	Not described	59/70
2021	guided	training is		ntal	practice	registered	modification	and	participants'	first home	home-			completed the
	home-based	strongly		modificatio	nurse (A	APRN) who	exercise		home	visit, the	based			home-based
	rehabilitation	recommende		n was	had	received	programme	were		nurse	rehabilitat			rehabilitation
	exercise	d for patients		provided to	professi	onal	provided o	during		modified	ion			exercise
	programme	post-stroke,		diminish	physiotl	nerapy	home visits			the	exercise			programme
		and the time		any		provided				environme	program			
		spent in		environmen	environ	mental				ntal	me was			
		hospital may		tal hazards	modific	ation and				hazards	an			
		not be		(2) Exercise	guidanc					(2) During the				
		sufficient to		programme	_	during the				first 3	ly tailored			
		prepare		was	exercise	;				months,	rehabilitat			
		patients for		provided	program	nme				patients	ion			
		further		which						underwent	interventi			
		rehabilitation		mainly						three	on			
		. Also, home-		included						exercise	program			
		based		strengtheni						sessions	me			
		rehabilitation		ng the lower						per week,				
		was proved		limb muscle						with each				
		to decrease		groups with						session				
		the level of		exercises,						lasting 30				
		disability and		such as joint						min				
		correspondin		training, sit-						(3) During the				
		gly improve		ups,						next 3				
		functional		balance						months,				
		recovery		training						patients				
		among		while						underwent				
		patients with		standing,						one session				
		motor		standing,						per week				
		impairments		bending to						(4) Thereafter,				
				pick things						the				
				up, straight						frequency				
				leg-lifting,						of the				
				and						supervised				

				climbing				exercise				
				stairs				dropped to				
								once a				
								month, and				
								once every				
								other				
								month, up				
								to 12				
								months				
Deng	Integrated	Transitional	Not specified	As soon as the	A	Home-based	At patients'	(1) The	Not	Not described	Not described	49/49
2020	transitional	care (TC)		patient was	multidisciplinary	interventions were	home	scheduled	described			completed the
	care	interventions		discharged to	poststroke	provided during		treatment				Integrated
	programme	have		home, the	consultation team	home visits		was 8				transitional
		emerged as a		home-based	consisting of a			weeks and				care
		potential		intervention was	community-based			maximally				programme
		solution to		performed,	general			2 hours per				
		ensure the		including (1)	practitioner, a			day				
		continuity		ongoing stroke	nurse and a			(2) During the				
		and		rehabilitation,	rehabilitation			first 4				
		coordination		(2) medication	therapist. The			weeks,				
		of healthcare		reconciliation	extended team			team				
		when		and (3) self-	members included			members				
		patients		management	a neurologist, a			were				
		transfer		education	rehabilitation			present				
		across care		regarding risk	specialist and			three days				
		settings and		factors control	social workers. To			a week				
		between		and stroke	ensure the			(3) Periodic				
		providers		warning signs	continuity of care			phone calls				
					delivery, a nurse in			were used				
					the community			to				
					setting was			understand				
					designated as a			patient				
					coordinator			changes.				
								At a				

								minimum,				
								patients				
								were .				
								contacted				
								twice a				
								week for				
								the first				
								four weeks				
								postdischar				
								ge				
								(4) During the				
								next 4				
								weeks,				
								team				
								members				
								were				
								present				
								once a				
								week				
Duncan	Therapist-	Emerging	Not specified	(1) 10-minute	A physical	Home-based	At patients'	(1) The	(1) Resis	Not described	Not described	10/10
1998	supervised	evidence	_	warm-up			home	experiment	tance			completed the
	home-based	suggested		session of	the home-based			al exercise	progr			home-based
	exercise	that intensive		stretching	exercise	home visits		interventio	essio			exercise
	programme	remedial		and	programme			n was	n was			programme
		therapy like		flexibility	1 0			initiated	based			
		aerobic		exercise				within 5	on a			
		training may		(2) The first				days of	proto			
		be beneficial		block				baseline	col in			
		for stroke		included				testing	whic			
		survivors, as		assistive				(2) The	h			
		a result,		and				programm	when			
		researchers		resistive				e included	subje			
		combined all		exercises				3 visits a	cts			
		3		using				week for 8	could			
	1	J 3		using				week 101 8	could			

components	Propriocept		weeks, and	comp		
(strength,	ive		the patients	lete 2		
balance, and	Neuromusc		were	sets		
endurance)	ular		instructed	of 10		
into 1	Facilitation		to continue	repeti		
intervention	Patterns		the	tions		
	(PNF) or		exercise	throu		
	Theraband		programm	gh		
	exercise to		e on their	the		
	the major		own for 4	avail		
	muscle		additional	able		
	groups of		weeks	range		
	the upper		(3) Each	of		
	and lower		exercise	motio		
	extremities		session	n,		
	(3) The second		lasted	resist		
	block		approximat	ance		
	included 15		ely 1.5 h	was		
	minutes of			incre		
	balance			ased		
	exercises,			by		
	(4) In the third			progr		
	block,			essio		
	participants			n of		
	were			Thera		
	encouraged			band		
	to use the			elasti		
	affected			city		
	upper			(level		
	extremity in			s of		
	functional			resist		
	activities			ance)		
	(5) The final			or by		
	block			incre		

				included a					ased			
				progressive					manu			
				walking					al			
				programme					resist			
				or progressive					ance in			
				exercise on					nn PNF			
				a bicycle								
									exerc			
				ergometer					ises			
									(2) Indiv			
									idual			
									S			
									were			
									instru			
									cted			
									to			
									walk			
									at their			
									usual			
									pace			
									or bicyc			
									le at			
									low			
									revol			
									ution			
									s per			
									minut			
									e			
Hofstad	Early	Aimed to	Not specified	Not specified	A multi-	Home-based	At patients'	(1) The	Not	Not described	Not described	(3) Many
2014	supported	compare the	riot specified	Not specified	disciplinary	interventions were	home	scheduled	described	INOT DESCRIBED	INOT described	patients
2014	discharge	rehabilitation			community health		nome	treatment	described			did not
	(ESD) to	results after			team, consisting of			period was				
	(150) 10	resurts after			icam, consisting of	HOTHE VISITS		period was				comply

	home with	ESD to			a nurse, a			five weeks				with the
	home-based	rehabilitation			physiotherapist			and				schedule
	intervention	as usual, and			and an			maximally				d
		to investigate			occupational			four hours				treatment
		the effect of			therapist provided			per day,				(4) 85/104
		community			the home-based			five days a				complete
		treatment			intervention			week				d the
		given in two						(2) During the				home-
		different						treatment				based
		settings;						period,				interventi
		either in a						team				on
		day unit or in						members				
		the patients'						were				
		homes						present				
								three days				
								a week,				
								and the last				
								two the				
								days of the				
								week the				
								patients				
								trained by				
								themselves				
								after				
								instruction				
								s from the				
								team				
Lincoln	Home-based		Not specified	Rehabilitation	A	Home-based	At patients'	Home-based	Not	Not described	Not described	Not described
2004	intervention	assess		service	multidisciplinary	interventions were	home	rehabilitation	described			
	performed by	whether		including	team provided the	provided during		was provided				
	a community	rehabilitation		physiotherapy,	home-based	home visits		for as long as it				
	stroke team	by a		occupational	intervention			was considered				
		specialist		therapy, speech				patients were				
		multiprofessi		and language				benefiting				

		onal team		therapy								
		improved the										
		outcome, in										
		terms of										
		functional										
		abilities,										
		mood,										
		quality of life										
		and										
		satisfaction										
		with care, as										
		compared										
		with										
		conventional										
		outpatient										
		rehabilitation										
		services										
Lindley	Family-led	Given that		(1) Family	(1) A	(1) Family	(1) The	(1) The family	Not	Not described	(1) For	(1) The
2017	rehabilitation	low-income	intervention	rehabilitatio	rehabilitation	rehabilitation	family	rehabilitati	described		family	family
	after stroke in	and middle-	manual was	n training	professional	training was	rehabilita	on training			rehabilita	rehabilita
	India	income	provided for	involved	provided the	provided	tion	was			tion	tion
		countries	the patient	training	family	during home	training	designed to			training,	training
		have only		family	rehabilitation	visits	was	take place			a log of	program
		about 3%	caregiver	members to	training	(2) Home-based	started in	for about 1			trial	me was
		equivalent		provide a	(2) Home-based	interventions	hospital,	h a day in			interventi	delivered
		purchasing		simplified	intervention	for patients	and .	hospital for			ons was	as
		power to		version of	for patients	were provided	continue	about 3			kept by	planned
		spend on		evidence-	was mediated	by caregivers	d at home	days. After			the	with a
		health care		based	by caregivers	at home	(2) The	hospital			professio	mean
		compared		rehabilitatio			home-	discharge,			nal for	time of
		with high-		n, and			based	up to six			each	3·0 h in
		income		included			interventi	home visits			participa	hospital.
		countries,		comprehens			on was	were			nt for	And an
		any new		ive			performe	provided to			hospital	additiona

model of	impairment	d at home	assess	and home	13·1 h of
stroke	and		progress,	visit	training
rehabilitation	disability		continue	activities	were
should be	assessment		caregiver	(2) Patients	delivered
both	by the		training	and their	during
sustainable	coordinator		activities,	caregiver	home
and effective.	s;		and reset	s were	visits
Researchers	information		goals	encourag	(2) Patients
hypothesised	provision;		(2) Patients	ed to	and
that family	joint goal		and their	perform	caregiver
caregiver	setting with		caregivers	family-	s reported
delivered	the patient		were	led	17·8 h of
rehabilitation	and		encourage	rehabilita	family-
would	caregiver		d to	tion and	led
increase	for basic		performed	they were	rehabilita
independenc	activities of		the home-	encourag	tion
e and	daily living		based	ed to	given in
survival after	(ADL),		interventio	keep log	the first
stroke unit	extended		n after	of	30 days
admission	ADL		discharge	rehabilita	after
	(EADL),		to home	tion	hospital
	and			activities	discharge
	communica			for 30	
	tion;			days after	
	caregiver			discharge	
	training for				
	limb				
	positioning;				
	encourage				
	ment of the				
	practice of				
	task-				
	specific				
	activities;				

Mayo 2000	Tailor-made home programme of rehabilitation and nursing services with prompt discharge from hospital	Aimed to evaluate the effectiveness of prompt discharge combined with home rehabilitation on health-related quality of life (HRQL), community reintegration.	Not specified	and reminders to prepare the patient and carer for hospital discharge (2) Home- based intervention mediated by caregivers was prescribed for patients and their caregivers Home-based intervention included physical therapy, occupational therapy, speech therapy, and dietary consultation	A multidisciplinary team provided the home-based intervention	Home-based interventions were provided during home visits and supplemented with telephone monitoring	At patients' home	(1) The duration of the interventio n was 4 weeks (2) Subsequen t home visits were arranged as needed	Interventi on was individ ualized to a patient' s needs	Not described	Not described	Not described
Rasmuss	Early home-	community reintegration, and function Aimed to	After being	(1) Home-	A	Home-based	At patients'	(1) As soon as	Home-	Not described	Not described	36/38
en	based	evaluate the	_	based	multidisciplinary,	interventions were	_	an	based			completed the

2016	rehabilitation	efficacy of	homes,	intervention	intersectoral and	provided during	inpatie	nt training	home-based
		early home-	written plans	s before	interventional	home visits	was ab	e to was based	intervention
		based	for training	discharge	team including a		train	at upon the	
		rehabilitation	sessions	included	nurse,		home,	patient's	
		compared	were given to	physical	physiotherapists,		home-	needs and	
		with standard	patients	exercises	occupational		based	rehabilitat	
		care three		and training	therapists and		interve	ntio ion goals	
		months after		of activities	physicians,		ns	vere	
		stroke onset.		of daily	provided the		perform	ned	
				living	home-based		one	to	
				(2) After being	intervention		three t	mes	
				discharged			per we	k	
				to homes,			(2) After		
				patients			dischar	ged	
				received			to h	me,	
				written			the ho	me-	
				plans for			based		
				training			interve	ntio	
				sessions,				vere	
				and			provid		
				received			one to	five	
				help to			days	per	
				perform				for	
				activities of			up to	four	
				daily living			weeks		
				and			accord		
				continued			to	the	
				rehabilitatio			ability		
				n training,			needs		
				which			the pat	ents	
				focused on					
				the patient's					
				occupationa					
				l problems					

Santana	Early home-	While EHSD	Not specified	(1) Patients and	Two	Home-based	The EHSD	(1) EHSD	(1) Infor	Not described	Not described	Not described
2017	supported	services for		carers	physiotherapists,	interventions were	intervention	interventio	matio			
	discharge	stroke		received	two occupational	provided during	was started in	n started	n and			
	(EHSD)	patients have		education	therapists and a	home visits	hospital, and	during	traini			
	service	been		on healthy	psychologist		continued at	patients'	ng			
		researched in		behaviours			home	stay at the	was			
		Scandinavia		and				stroke unit	tailor			
		and the		information				(2) Approxima	ed to			
		United		about stroke				tely eight	the			
		Kingdom, no		(2) The mix of				home-	patie			
		trials have		physiothera				based	nt's			
		taken place		py,				training	needs			
		in the health		occupationa				sessions	(2) Reha			
		systems		l therapy				for a	bilitat			
		environment		and				maximum	ion			
		of Southern		psychology				of one	was			
		Europe. The		sessions				month	focus			
		present study		was also				were	ed on			
		was		adapted to				provided	daily			
		developed as		the specific					activi			
		part of a		condition of					ties			
		European		each					value			
		project on		patient.					d by			
		integrated		Rehabilitati					the			
		care		on was					patie			
				focused on					nt in			
				daily					their			
				activities					usual			
				valued by					conte			
				the patient					xt			
				in their								
				usual								
				context								
				(3) Caregivers								

		scarcely						visit				
		explored.						Visit				
		This study										
		aimed to										
		compare										
		three models										
		of										
		rehabilitation										
		: ESD in a										
		day unit, ESD at home										
		and										
		traditional										
		treatment in the										
XX7 11	TT 1 1	municipality	N. 4 'C' 1	0 1	A 1	TT 1 1	A	TDI 1	TI	Not described	N. ( 1 7 1	Not described
Walker 1999	Home-based	Aimed to evaluate the	Not specified	Occupational	A research	Home-based	At patients'	The home-	The	Not described	Not described	Not described
1999	occupational			therapy was	occupational	intervention was	home	based	frequency of			
	therapy	effect of		provided to	therapist provided the home-based			intervention was provided	interventi			
		occupational		improve the independence in	intervention	nome visits		was provided for patients				
		therapy on stroke			intervention			with stroke 1	on was agreed			
		patients who		personal and instrumental					_			
				ADL				month after onset for up to	the			
		were not admitted to		ADL				5 months	therapist,			
		hospital						3 monuis	patients			
		поѕрнаг							and if			
									relevant,			
									the carers			
Wolfe	Home-based	Stroke	Not specified	Not specified	A rehabilitation	Home-based	At patients'	The home-	Not	Not described	Not described	Not described
2000	rehabilitation	patients	1 tot specified	110t specified	team including a	intervention was	home	based	described	1 tot described	1101 described	1 tot described
2000	101140111441011	requiring			physiotherapist,	provided during	1101110	intervention	acsortioed			
		rehabilitation			occupational	home visits		was provided				
		, those not			therapist, a speech	nome visits		for a maximum				
	1	, mose not			merapist, a speccii			101 a maximulli	1	l		

		admitted to			and language			of 3 months				
		hospital were			therapist and a							
		significantly			therapy aid,							
		less likely to			provided the							
		receive			home-based							
		rehabilitation			intervention							
		than those										
		admitted. In										
		an attempt to										
		redress this										
		situation,										
		researchers										
		aimed to										
		assess the										
		effectiveness										
		of providing										
		rehabilitation										
		to non-										
		admitted										
		stroke										
		patients in a										
		pilot trial										
Azab	Home-based	Aiming to	Not specified	(1) Home-	A family member	-	The home-	(1) The home-	Participan	Not described	Compliance	Not described
2009	constraint-	investigated		based	=	supervised and		based	ts were		was reported	
	induced	the effect of		CIMT	encouraged the	_	intervention	interventio	encourag		by the trained	
	movement	home-based		consisted of	patients to perform	patients to perform	was	n was	ed to		family	
	therapy	CIMT on the		the	the home-based	the home-based	performed at	*	progress		member in the	
	(CIMT)	Barthel Index		participant	intervention	intervention	patients'	for 6 to 7	the task		home diary	
	combined	(BI)		wearing a			home	hours per	goal		activities	
	with usual			"mitt" on				day for a	_		sheet	
	care			the				period of 4	to their			
				uninvolved				consecutiv	motor			
				hand while				e weeks	capabiliti			
				practicing a				(2) The usual	es or the			

				full				care was	speed of			
				functional				performed	performa			
				task				_	_			
									nce			
				(2) Usual care				minutes,				
				included				three times				
				physical				per week				
				and				for 4 weeks				
				occupationa								
				l therapy								
				which								
				included								
				active range								
				of motion of								
				bilateral								
				upper								
				extremities,								
				stretching								
				exercises in								
				the upper								
				extremity,								
				hand-eye								
				coordinatio								
				n activities,								
				ambulation,								
				and								
				strengtheni								
				ng exercises								
				for bilateral								
				upper								
				extremities								
Batchelo	Home-based	Aiming to	Not specified	(1) Home-	A physiotherapist	The home-based	The home-	Not specified	Individua	Not described	Adherence	(1) 75/85
r	multifactoria	determine		based	provided the	intervention was	based		lised		was assessed	complete
2012	l Falls	whether a		multifactori	home-based	provided during	intervention		home		through	d the 12
	prevention	multifactoria		al Falls	intervention	home visits	was		exercise		exercise	months
	-	-	•	•	•	•	•	•		•		-

com	mbined											follow up
with		prevention		programme			patients'		me was		completed by	(2) Of the 64
******	th usual	programme		included			home		prescribe		participants	interventi
care	re	reduces falls		home-based					d		and	on
		in people		exercise							discussion	participa
		with stroke at		programme							with the	nts for
		risk of		which							physiotherapi	whom
		recurrent		addressed							st at each	falls data
		falls and		balance and							review and	were
		whether this		mobility							following	available,
		programme		problems,							completion of	16
		leads to		falls risk							the study	(25.0%)
		improvement		minimizatio								fully
		s in gait,		n strategies								adhered,
		balance,		and injury								36
		strength, and		risk								(56.3%)
		fall-related		minimizatio								partially
		efficacy		n strategies								adhered,
				(2) Usual care								and 12
				including								(18.7%)
				physical								did not
				and								adhere to
				occupationa								the
				1 therapy								exercise
				was								program
				provided by								me
				professiona								
				ls								
Chumbl Mul	altifaceted	Aiming to	Not specified	(1) Home			At patients'	The STeleR	The	Not described	An in-home	(1) 22/25
er strol	oke	determine		televisits	or an occupational	intervention was	home	intervention	prescribe		messaging	complete
		whether a		were	therapist provided	provided through		lasted 3 months	d exercise		device	d the 3
		multifactoria		provided to	tele-rehabilitation	telerehabiltiation		which included			(IHMD) was	months
inte	ervention	l falls		demonstrat	intervention			3 1-hour home	selected		used to	follow up
com	mbined	prevention		e exercise				tele-visits and 5	by the		enhance	(2) 24/25

with	usual programme	which	telephone	therapist	exercise	complete
care	reduces falls	focused on	intervention	based on	adherence	d the 6
	in people	strength and	calls	patients'		months
	with stroke at	balance, to		physical		follow up
	risk of	developed a		performa		
	recurrent	treatment		nce		
	falls and	plan which		measures		
	whether this	might				
	programme	include				
	leads to					
	improvement	n of home				
	s in gait,	environmen				
	balance,	t and				
	strength, and					
	fall-related	of new				
	efficacy	adaptive				
		equipment				
		or				
		techniques,				
		to solve				
		interval				
		problems				
		(2) Telephone				
		intervention				
		was				
		provided to				
		review				
		current				
		exercise				
		regimen				
		and				
		assistive				
		technology				
		and to				

				reassess and advance the								
				exercise								
				program								
				(3) Routine								
				Veterans								
				Affairs								
				(VA) care								
				was								
				provided								
Corr	Home-based	Aiming to	Not specified			The home-based		Not specified	Appropri	Not described	Not described	46/55
1995	occupational	evaluate the		based		intervention was	home		ate			completed the
	therapy	influence of		intervention	the home-based				therapeuti			1 year
	combined	continued		including	intervention	home visits			c			assessment
	with usual	rehabilitative		teaching new					interventi			
	care	intervention		skills;					ons were			
		by an		facilitating more					carried			
		occupational		independence in					out as			
		therapist on		activities of					needed,			
		stroke		daily living;					based on			
		patients after		facilitating					the model			
		their		return of					of human			
		discharge		function;					occupatio			
		from a stroke		enabling					n			
		unit		patients to use								
				equipment								
				supplied by								
				other agencie, was provided by								
				an occupational								
				therapist during								
				home visits								
				(2) Any other								
				follow up			<u> </u>					

				services	such as								
				day-hosp									
				attendan									
				commun									
				physioth									
				were pro									
Gilberts	Domiciliary	Aiming to	_	(1) Hom			The home-based		The home-	The	Not described	Not described	(1) 64/67
on	occupational	establish if a		intervent		therapist provided		home	based	home-			complete
2000	therapy	brief		which	was	the home-based	•		intervention	based			d the 8
	combined	programme		tailored	to	intervention	home visits		was provided	interventi			weeks
	with usual	of		recovery	-				for 6 weeks for	on was			assessme
	care	domiciliary		of self-					around 10 visits	_			nt
		occupational		domestic					lasting 30-45	d tailored			(2) 60/67
		therapy could		leisure a					minutes	to			complete
		improve the		(2)	Routine					recovery			d the 6
		recovery of		services						goals			months
		patients with		included						identified			assessme
		stroke		inpatient						by the			nt
		discharged		multidise	iplinar					patients			
		from hospital		y rehabi	litation,								
				a predi	scharge								
				home v	sit for								
				selected									
				patients,	the								
				provision	of								
				support	services								
				and equ	ipment,								
				regular									
				multidise	iplinar								
				y review	_								
				-	clinic,								
					selected								
				patients									
				to a med									
	1	1	<u> </u>			l	l	I	1	1	<u> </u>	<u>I</u>	I

				hospital								
Goldber	Home-based,	Aiming to	A stroke	(1) Home-based	A physiatrist,	The home-based	At patients'	The home-	Not	Not described	Not described	21/27
g	case-	develop a	educational	intervention	psychologist, and	intervention was	home	based	described			completed the
1997	managed	systematic	manual with	included	recreational	provided during		intervention				1 year
	care	follow-up	associated	therapeutic	therapist provided	home visits		was provided				assessment
	combined	program for	printed	recreation,	the home-based			bimonthly for				
	with usual	stroke	materials	social work, and	intervention			hour-long				
	care	survivors and	was provided	psychology								
		their		consultation								
		caregivers		(2) Standard								
		during the		outpatient								
		first year		follow-up								
		after		services								
		discharge		included routine								
		from		medical follow-								
		inpatient		up visits and,								
		rehabilitation		when indicated,								
		, and to test a		outpatient								
		new model of		rehabilitation								
		delivery of		service								
		health										
		services to										
		this										
		population										
Mandigo	Individualize	Aiming to	Not specified	(1) The	A therapist	The home-based	-	The home-	Individua	Not described	An activity	39/42
ut	d home-	investigate		treatment	provided the		home	based	lized		tracker was	completed the
2021	based	whether an		strategy of	home-based	provided during		intervention	coaching		used to	home-based
	coaching	individualise		home-based	intervention	home visits		was provided	program		monitor	intervention
	program	d home		intervention				through home	was		physical	
	combine with	coaching		was not				visits once	provided		activities at	
	usual care	program		specified				every 3 weeks			home	
		improved		(2) Usual care				for 6 months				
		walking		which								
		capacity (at 6		might								

		months) and		include								
		promoted		outpatient								
		long-term		therapy,								
		benefits (at		medical								
		12 months)		appointmen								
		in subacute		t								
		post-stroke										
		patients										
Ricauda	Home	Aiming to	Not specified	(1) The home-	Physiotherapists,	The home-based	At patients'	Not specified	Not	Not described	Not described	39/60
2004	hospitalizatio	evaluate		based	speech therapists,	intervention was	home	_	described			completed the
	n service	whether		intervention	occupational	provided during						6 months
	combined	home-treated		emphasized	therapists and	home visits						assessment
	with usual	patients have		a task- and	psychologists,							
	care	different		context-	provided the							
		mortality		oriented	home-based							
		rates from		approach,	intervention							
		those of		which								
		patients		recommend								
		admitted to		ed that the								
		and treated		patient								
		on a general		perform								
		medical ward		guided,								
		(GMW), and		supervised,								
		to evalute		and self-								
		residual		directed								
		functional		activities in								
		impairment,		a functional								
		neurological		and familiar								
		deficit,		context								
		depression,		(2) Routine								
		morbidity,		hospital								
		and		rehabilitatio								
		admission to		n service								
		long-term										

		facilities in										
		the two										
		groups of										
		patients										
Rudd	Early	Aiming to	Not specified	(1) Home-	Therapists	The home-based	At patients'	The home-	Individua	Not described	Not described	136/167
1997	discharge	assess the	T ve v Sp conneu	based	provided the		home	based	l care plan	1100 400011000		completed the
1,7,7,	with home	clinical		intervention	home-based	provided during		intervention	was			12 months
	rehabilitation	effectiveness		included	intervention	home visits		was provided	provided			assessment
	combined	of an early		physiothera		Heilie ( Ibio		for maximum	-			ass essiment
	with usual	discharge		prysioarera py,				once a day, for	patient			
	care	policy for		occupationa				up to 3 months	patient			
	cure	patients with		l therapy				up to 3 monuis				
		stroke by		and speech								
		using a		therapy								
		community-		(2) Convention								
		based		al care								
		rehabilitation		included in-								
		team		patient								
				treatment,								
				discharge								
				planning,								
				and								
				outpatient								
				care								
Wong	4-week	Aiming to	Not specified	(1) TCP	A trained nurse	The home-based	At patients'	(1) Home-	Not	Not described	Not described	(1) 47/54
2015	transitional	test the	_	included	provided the	intervention was	home	based	described			complete
	care	effects of a		home-based	home-based	provided during		interventio				d the 4
	programme	transitional		intervention	intervention	home visits		n was				weeks
	(TCP) with	care model		consisting				provided				assessme
	home-based	with a		of				three days				nt
	intervention	specified		managemen				per week				(2) 45/54
	combined	dose of		t and				for 4 weeks				complete
	with usual	intervention		prevention				(2) The				d the 8
	care			of stroke				routine				weeks
1	1	1	1				1	1	1	1		

	recurrence;	hospital-	assessme
	symptoms	based	nt
	assessment	physical	110
	and	training	
	managemen	programm	
	t; enhancing	e was	
	physical	offered	
	function:	within the	
	self-care	first 3	
	abilities and	weeks after	
	exercise;	hospital	
	healthy	discharge	
	behaviour:	aibonaigo	
	adherence		
	to		
	medication		
	and diet;		
	building		
	resilience:		
	connections		
	with the		
	self, family,		
	social life		
	and a		
	Higher		
	Being; and		
	emotion		
	managemen		
	t		
	(2) routine		
	hospital-		
	based		
	physical		
	training		
	пашшу		

				programme was provided								
Koç 2015	Home-based exercise	Aiming to assess the efficiency of structured home-based exercises for patients with subacute ischemic stroke in terms of their activities of daily living	Not specified	Home-based intervention including stretching and flexibility exercises, assistive and resistive exercises, active-assisted range of motion exercises, and progressive walking programme and	A nurse provided the home-based intervention		home	Home-based intervention was provided twice a week for 12 weeks, with each treatment session lasting 1 hour	Not described	Not described	Not described	Not described
Lin 2004	Home-based physical therapy programme	Aiming to examine the effects of low-intensity home-based physical therapy on the performance of ADL and motor	Not specified	relaxation  Home-based intervention mainly consisted of motor facilitation, postural control training, functional ambulation training with	physical therapists provided the home-based	The home-based intervention was provided during home visits	ients' home	Home-based intervention was provided once a week for 10 consecutive weeks, with each treatment session lasting about 50 to 60 minutes	Daily exercise program mes were tailor- made to the patients' individual needs	Not described	Not described	9/10 completed the home-based intervention

		function in patients more than 1 year after stroke		gait correction, and ADL training								
Wade 1992	Home-based physiotherap y intervention	Aiming to determine whether the home-based intervention of a physiotherap ist improved mobility in patients seen more than one year after stroke	Not specified	Home-based intervention included exercises to improve the walking and balance and ADL practice	A physiotherapist provided the home-based intervention	The home- based intervention was provided during home visits	At patients' home	Home-based intervention was provided for 3 months	Not described	Not described	Not described	48/49 completed the 3 months assessment
Walker 1996	Home-based dressing practice	Aiming to investigate the intensive treatment for patients with persistent dressing problems at six months after discharge from hospital	Not specified	Home-based intervention involved teaching patients and carers appropriate techniques such as dressing the affected limb first, energy conservation, the use of red thread to overcome perceptual difficulties and	An occupational therapist provided the home-based intervention	The home-based intervention was provided during home visits	At patients' home	Home-based intervention was provided for 3 months	Not described	Not described	Not described	Not described

				to mark								
				alignment of								
				buttons, and								
				advice on								
				choice of								
				clothing								
Wang	Caregiver-	Aiming to	Individualize	Home	(1) A physical	(1) The	At patients' home	(1) The	A	Not described	Caregivers	25/25
2015	mediated,	examine	d training	intervention was	therapist	teaching	rt patients nome	teaching of		Tvot described	was requested	
2013	home-based	whether CHI	guidelines	designed to	prescribed	of the		the home-	zed		to record the	*
	intervention	based on the	and simple	improve	the home-	home-		based	training		frequency of	intervention
	(CHI)	ICF	illustrations	patients' body	based	based		interventio	schedule		training and	intervention
	(CIII)	conceptual	were	functions and	intervention	intervent		n was	was		tasks	
		framework	provided by	structural	and taught	ion was		provided	provided		completed	
		was effective	a physical	components; to	home-based	provided		once a	for each		each week,	
		in improving	therapist for	improve	intervention	during		week for	patient		and during the	
		the physical	the	patients' ability	to patients	home		12 weeks	patrent		home visits,	
		functioning	caregivers	to undertake	and their			with each			the physical	
		of patients	8	everyday	caregivers	home-		session			therapist	
		with chronic		activities within	(2) Patients and	based		lasting			examined the	
		stroke		their living	their	intervent		approximat			activities	
				environments	caregivers	ion was		ely 90			practiced, the	
				using task-	performed	provided		minutes			frequency of	
				specific	the home-	by		(2) The home-			practice, and	
				restorative and	based	caregiver		based			the overall	
				compensatory	intervention	s at home		interventio			progress of	
				training				n was			the patient	
				methods; and to				encourage			during the	
				help the patients				d to be			past week.	
				reintegrate into				performed				
				the society by				at least				
				participating in				twice a				
				restorative				week and,				
				outdoor leisure				if possible,				
				activities				every day				