# Medicaid Policies for AIDS-Related Hospital Care

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With hospital services comprising an important part of care related to acquired immunodeficiency syndrome (AIDS), and all Medicaid programs becoming major payers of these services. Medicaid policies affect the care that Medicaid recipients with AIDS receive. Many States pay hospitals on the basis of prospective payments that do not vary with patient diagnosis. In contrast, Medicaid programs using diagnosis-related group (DRG) payment methods adjust payments to reflect the greater cost of AIDS care. At least 12 Medicaid programs limited the number of paid inpatient hospital days during 1992; Medicaid recipients with AIDS could easily exceed such limits.

## INTRODUCTION

The treatment of patients with AIDS is evolving into the management of a chronic disease punctuated with episodes of acute illness. Much of the care needed during these acute episodes is appropriately provided by acute-care hospitals (Cotton, 1988; Green, Oppenheimer, and Wintfeld, 1994). Interviews of 784 persons with AIDS (PWA) from 10 cities throughout the United States during 1992 indicated that 30 percent of these PWA were hospitalized at some time during the preceding 3 months (Hellinger, 1993). PWA are hospitalized numerous times during the course of their illnesses: A nationwide survey of hospitals found that AIDS patients averaged 1.7 hospital admissions per year during 1988 and 28.4 inpatient hospital days per year (Andrulis et al., 1992). A 1988 survey of hospitals in Texas found that AIDS patients averaged 1.6 admissions per year, with these patients averaging 18.9 inpatient hospital days per year (Begley and Hintz, 1990). Hellinger (1993) estimates that people diagnosed with AIDS during 1993 will have an average survival of 25 months. Multiplying this survival time by the average number of hospital admissions per year (1.7) indicates that PWA can expect to be hospitalized at least 3 times, with more than 50 total inpatient days, during the lifetime course of their illnesses.

The State Medicaid programs are the major payers for health services related to AIDS and human immunodeficiency virus (HIV). Medicaid covered some or all of the health care for more than 40 percent of PWA during 1991 (Wilensky, 1991). A nationwide survey of 230 hospitals revealed that Medicaid programs paid for 47.6 percent of all AIDS and HIV-related inpatient care during 1988 (Andrulis et al., 1992). Another study found that during 1987 Medicaid paid for 53.4 percent of all AIDS hospitalizations in New York City (up from 39.7 percent in 1983), 30.0 percent in San Francisco (up from 18.5 percent in 1983), and 27.8 percent in Los Angeles (up from 10.4 percent in 1983) (Green and Arno, 1990). By 1989, the California Medicaid program (Medi-Cal) covered the health services for 46 percent of Californians with AIDS (Hay and Kizer, 1993). Hospitalizations for HIV infection

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were the 67th-costliest diagnosis nationwide for the Medicaid programs during 1987, compared with only the 138th-costliest diagnosis nationwide for all payers (Andrews et al., 1994).

The AIDS epidemic is no longer just a problem of the larger cities on both coasts of the United States; HIV is spreading in all regions of this country. During 1982, only 168 counties or health districts (7 percent) reported diagnoses of AIDS. By 1990, however, 1,788 of these jurisdictions (78 percent) reported AIDS cases, with the highest rates reported not only on the East and West Coasts, but in the South as well (Lam and Liu, 1994). Between 1988 and 1990, the top 25 counties in the United States with the highest rates of increase in number of AIDS cases were mostly rural counties with an average population of 73,000 (Lam and Liu, 1994). The spread of AIDS into rural and urban areas in all regions of this country increases the impact that Medicaid policies in all States have on the health care available to PWA.

The objectives of our research were to describe and analyze Medicaid coverage, utilization, and payment policies for the hospital care provided to Medicaid recipients with AIDS or HIV-related illnesses. These data were collected by surveying the State Medicaid programs.

## THE SURVEY PROCESS

In late December 1992, questionnaires were sent to Medicaid administrators responsible for hospital-related policies. Three subsequent mailings of the questionnaire were sent to the Medicaid programs not responding during 1993, with 43 States participating in the study. Tables summarizing the results of the survey were prepared in March 1994 and mailed to the Medicaid programs for verification and correction.

### HOSPITAL-PAYMENT POLICIES

Federal policy gives the States flexibility in establishing their Medicaid payment methods for hospital care, requiring that payments be "reasonable and adequate" to pay the costs of an efficiently administered hospital complying with Federal and State quality and safety standards (Omnibus Reconciliation Act of 1981, Public Law 97-35). The survey of the Medicaid programs asked the administrators to identify the payment method used to pay hospitals for the inpatient care provided to Medicaid recipients. The responses are presented in Table 1.

As Table 1 illustrates, most Medicaid programs paid hospitals during 1992 using either a DRG methodology or a hospitalspecific prospective per diem payment. The DRG method links the level of payment to the diagnosis of the Medicaid recipient, with different diagnoses generating different payment levels. The DRG system pays a prospective rate, but this predetermined payment is set for each diagnosis. In contrast, a hospital-specific prospective per diem payment typically pays hospitals a fixed, predetermined amount for each day of hospital care provided to a Medicaid recipient, regardless of diagnosis.

When a Medicaid program pays such a fixed amount without adjustment for diagnosis or treatment, the hospital receives the same payment regardless of the Medicaid recipients' care needs. The hospital is paid at the same rate for caring for Medicaid patients requiring complex, medically intensive services as for Medicaid patients requiring less intensive care. However, the costs of these treatments can vary. Medicaid payment methods that establish predetermined, fixed payments, whether per day, per discharge, or per admission, could discourage hospitals from admitting Medicaid recipients with intensive care needs, such as patients with AIDS.

Method	State	
Statewide Prospective per Diem	Nevada	
Hospital-Specific Prospective per Diem	California (negotiated with each hospital), Connecticut (with annual settlement based on cost report), Florida, Hawaii, Kentucky, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma (methodology recognizes eight different levels of hospital care, each with its own payment level), and Vermont.	
Cost Report	Alabama and Louisiana.	
Retrospective per Diem	Arkansas (year-end cost settlement, with 1992 cap of \$584 per day	
Diagnosis-Related Group (DRG)	Colorado, Itlinois, Iowa, Kansas, Michigan, Minnesota, Montana, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon (with small, rural hospitals receiving cost- based payments), Pennsylvania, South Carolina, <sup>1</sup> South Dakota, Texas, Utah, Washington, <sup>1</sup> and Wisconsin.	
Other	Alaska (hospital-specific prospective rate, percentage of billed), Delaware (interim percentage of charges, settled to costs retrospec- tively, based on audited cost reports), Georgia (hospital-specific prospective payment per admission), Idaho (lower of cost, charge, or hospital-specific target, based on per diem operating costs), Maine (hospital-specific rate per discharge), Maryland (ratesetting for each hospital; among factors considered are utilization, budgets, expenditures, and income), Rhode Island (hospital-specific prospec- tive rate), West Virginia (cost-based, retrospective system using pre- DRG Medicare principles of payment), and Wyoming (interim cost- to-charge ratio with retroactive cost settlement up to TEFRA limits).	
No Response	Arizona, District of Columbia, Indiana, Massachusetts, South Carolina, Tennessee, Virginia, and Washington.	

 Table 1

 Inpatient Hospital Care, by Medicaid Payment Methods: 1992

<sup>1</sup>These States did not respond to the survey but have been identified as using DRG payment methods for inpatient hospital care during 1991. The source of data for these States is: The Kaiser Commission of the Future of Medicaid: *Medicaid at the Crossroads*. Menlo Park, CA. The Henry J. Kaiser Family Foundation, November 1992.

NOTES: TEFRA is the Tax Equity and Fiscal Responsibility Act of 1982. SOURCE: Buchanan, R.J., University of Illinois, 1992-93.

### **Special AIDS Payments or Incentives**

Hospitalized AIDS patients can be treated in special-care units within the hospital, or they can be scattered among other general medical inpatients (Fahs et al., 1992). The questionnaire asked Medicaid program administrators if they used a different payment method during 1992 to pay hospitals for the inpatient care provided in AIDS specialcare units to Medicaid recipients with AIDS. In addition, the administrators were asked if they paid hospitals providing care to Medicaid recipients with AIDS in AIDS special-care units with a different payment rate during 1992. It was reported that the New York Medicaid program used a special payment method for AIDS special-care units. Hospitals in New York may seek designation as "AIDS treatment centers" through the certificate-of-need process. If designated as a center, the hospital has the one-time option to bill for HIV/AIDS care either with a negotiated, facility-specific per diem or through the DRG payment system. Hospitals that are not designated as AIDS treatment centers are paid with the DRG method. The average payment to an AIDS special-care unit in New York State during 1993 was \$10,613 per discharge.

Studies indicate that hospitals with greater experience in providing AIDS-related care are more successful in treating patients with AIDS-related illnesses (Bennett et al., 1990, 1992). Program administrators were asked if any incentives were provided to hospitals to specialize in AIDS-related care; however, no Medicaid programs except New York reported the use of such incentives. The Bureau of Health Economics of the New York State Department of Health responded that hospitals may seek designation as AIDS treatment centers, which, if granted, allows the hospital to select either a negotiated, facility-specific, per diem payment or the DRG payment system.

A related question asked if the 1992 Medicaid payment system (including payment method, process, and level) included incentives to hospitals to care for Medicaid recipients with AIDS. Most States responded "no," although some States recognized that the implementation of AIDS-related DRGs provided payment system incentives to care for Medicaid recipients with AIDS.

## **DRG** Payments

HCFA, analyzing data for fiscal years 1987 and 1988, concluded that HIV-infected patients were distributed across a number of DRGs, with their costs of care significantly higher than other patients without HIV within the same DRG (Federal Register, 1990). This conclusion resulted in the development of three HIV-related DRGs (488 through 490) for the Medicare hospital payment system during fiscal year 1991. This development was influenced by the 12 HIV-related DRGs implemented in New York State (Federal Register, 1990). Table 2 lists the 12 HIV-related DRGs implemented in New York. As Table 3 illustrates, most State Medicaid programs using the DRG payment methodology have adopted these three Medicare DRGs for HIV-related hospital care.

In States using DRGs, Medicaid payments to hospitals vary by diagnosis. The key to understanding such a system is the concept of the DRG relative weight. Each diagnosis is assigned a specific case weight. This weight compares the expected costs of care within a particular diagnosis with that of all hospital patients (42 CFR 412.60). For example, the Medicare DRG method assigned a relative weight of 4.3106 to DRG 488 (HIV with extensive operating room procedure) during fiscal year 1994 (Federal Register, 1993). This means that the Medicare program expects that the cost of care for the typical hospital patient within DRG 488 will be 4.3106 times greater than the average cost of care for all hospital patients across all 492 DRGs. Similarly, all the Medicaid programs using DRG 488 recognize that the costs of patient care provided to a Medicaid recipient classified in this category are substantially greater than the average costs of hospital care provided to all Medicaid recipients. As Table 3 illustrates, the relative weights assigned to DRG 488 by the State Medicaid programs using this DRG methodology ranged from 3.6085 in Wisconsin to 7.2244 in Texas during 1992.

To price the hospital care provided to a specific patient, the DRG method establishes a dollar base amount for the hospital that is then multiplied by the DRG relative weight. This DRG patient-care payment may be supplemented by payments for capital costs, indirect medical education, and costs resulting from patients who require extraordinary amounts of care. Unlike prospective payment rates that are not adjusted for case mix, however, prospective payments established with the DRG method vary with the diagnosis of the patient.

The New York Medicaid program began using 15 HIV-related DRGs in 1988 (*Hospitals*, 1988; Gardner, 1988), but in 1990 eliminated 3 DRGs for children under 13 years of age. In 1994, the list was expanded to include a total of 17 HIV-related DRGs. Table 2 shows the 12 DRGs used from

Table 2	
HIV-Related DRGs Implemented by the New York State Medicaid Program	

Number	Description	<b>Relative Weight</b>
DRGs in Use		
During 1993 <sup>1</sup>		
700 -	HIV with specified related condition, age < 13	4.3959
701	HIV-related central nervous system disease with opioid use, age > 12	5.6435
702	HIV-related central nervous system disease without opioid use, age >12	5.6435
704	HIV-related malignancy with opioid use, age > 12	4.5039
705	HIV-related malignancy without opioid use, age > 12	3.9148
707	HIV-related infection with opioid use, age $> 12$	4.5920
708	HIV-related infection without opioid use, age > 12	4.5920
710	HiV with other related condition with opicid use, age > 12	1.8651
711	HIV with other related condition without opioid use, age > 12	1.8651
712	HIV without specified related condition, age < 13	1.1513
713	HIV without specified related condition, with opioid use, age > 12	2.2179
714	HIV without specified related condition, without opioid use, age > 12	2.4863
DRGs in Use		
During 1994		
700	Tracheostomy for HIV infection	19.8610
701	HIV with operating room procedure and ventilation and/or nutrition support	10.7310
702	HIV with operating room procedure, with multiple major related infections	9.7448
703	HIV with operating room procedure with major related diagnosis	5.8235
704	HIV with operating room procedure without major related diagnosis	4.0658
705	HIV with multiple major related infections with tuberculosis	6.3831
706	HIV with multiple major related infections without tuberculosis	6.2854
707	HIV with ventilator or nutritional support	6.4124
708	HIV with major related diagnosis, discharged against medical advice	2.2553
709	HIV with major related diagnosis with multiple major or significant diagnosis with tuberculosis	3.8193
710	HIV with major related diagnosis with multiple major or significant diagnosis without tuberculosis	3.5363
711	HIV with major related diagnosis without multiple major or significant diagnosis with tuberculosis	
712	HIV with major related diagnosis without multiple major or significant diagnosis without tuberculosis	
713	HIV with significant related diagnosis, discharged against medical advice	1.5462
714	HIV with significant related diagnosis	2.0416
715	HIV with other related diagnosis	1.2148
716	HIV without other related diagnosis	0.5804

<sup>1</sup>The New Jersey Medicald program also used these 12 DRGs for HIV-related care during 1992.

NOTES: HIV is human immunodeficiency virus. DRG is diagnosis-related group.

SOURCE: Buchanan, R.J., University of Illinois, 1992-93.

1990-93 and the 17 in use during 1994. HCFA has suggested that payers interested in developing a DRG system for HIVrelated hospital care provided to patients across a wide range of ages "might consider the New York State model" (*Federal Register*, 1990). The New Jersey Medicaid program used the same 12 DRG categories for HIV-related care during 1992 that New York used from 1990-93.

The questionnaire for the Medicaid programs asked if HIV- or AIDS-related DRGs other than those used by the Medicare program would be implemented in 1993. New York's and New Jersey's actions have already been discussed. The Minnesota Medicaid program added two non-Medicare DRGs in 1993: medical assistance, non-AFDC (Aid to Families with Dependent Children), HIV-positive (relative weight = 1.84398); and medical assistance, AFDC, HIV-positive (relative weight = 8.02537). No other States reported the implementation of HIV or AIDS-related DRGs during 1993 that differed from those developed by Medicare.

#### **Medicaid Payment Levels**

The questionnaire asked for the average payment per admission during 1992 for all Medicaid recipients admitted as inpatients to acute-care hospitals, as well as for Medicaid recipients with AIDS or HIV-related illnesses

#### Table 3

Olehe	Weight for DRG 488	Weight for DRG 489	Weight for
State	Ung 468		DRG 490
Colorado	4.3106	1.9790	1.1904
Illinois <sup>1</sup>	3.7654	1.6286	1.0361
lowa	4.1296	2.0674	1.8080
Kansas <sup>2</sup>	_	-	_
Michigan <sup>3</sup>	6.0276	3.5811	2.5304
Minnesota⁴	_	<b>_</b>	_
Montana <sup>s</sup>	7.0949	3.2418	1.4098
New Hampshire	4.3106	1.9790	1.1904
New Jersev <sup>5</sup>	<u> </u>		_
New Mexico	5.6918	3.9542	2.2646
New York <sup>6</sup>			_
North Dakota	4.7490	2.3775	1.3579
Ohio <sup>3</sup>	5.02957	3.37140	1.51145
Oregon	5.5651	1.5520	1.0328
Pennsylvania	4.3106	1.9790	1,1904
South Dakota	4.3106	1.9790	1.1904
Texas	7,2244	3.4054	2.2095
Utah	3.6378	1.8118	1.0816
Wisconsin	3.6085	2.6047	1.7090
Medicare (FY 1992) <sup>7</sup>	4.3106	1.9790	1.1904
Medicare (FY 1993) <sup>8</sup>	4.1539	1.9151	1.1285
Medicare (FY 1994)9	4.3859	1.8468	1.1174

<sup>1</sup>Weights shown are for October 1, 1992-September 30, 1993.

<sup>2</sup>Weights not reported.

<sup>3</sup>Rates shown are for 1993.

Effective September 1, 1993, Minnesota implemented other HIV DRGs.

<sup>5</sup>New Jersey uses 12 HIV-related DRGs (see Table 2).

<sup>6</sup>See Table 2 for a listing of the HIV-related DRGs.

<sup>7</sup>Data from (Federal Register, 1991).

Data from (Federal Register, 1992).

<sup>9</sup>Data from (Federal Register, 1993).

NOTES: FY is fiscal year, HIV is human immunodeficiency virus.

SOURCE: Buchanan, R.J., University of Illinois, 1992-93.

who were admitted to these hospitals. The responses from States that provided this information are presented in Table 4. Not surprisingly, the average Medicaid payments for AIDS or HIV admissions were substantially higher than those for all Medicaid admissions. However, although the payments in Table 4 show primarily 1992 levels, in most States these payments do not exceed the 1988 average cost per AIDS-HIV admission of \$10,998, calculated in a national study (Andrulis et al., 1992).

## UTILIZATION OF INPATIENT HOSPITAL CARE

The questionnaire included a series of questions designed to collect data on hospital utilization policies and the utilization of inpatient hospital care by Medicaid recipients with AIDS. Many Medicaid programs were unable to supply AIDS-related hospital utilization data, either because the data were not available or to provide them would require special and costly computer runs.

#### **Utilization Limits**

From the 43 States participating in the survey, 12 Medicaid programs reported some form of annual utilization limit on inpatient hospital care available to Medicaid recipients during 1992. The following States limited the annual number of inpatient hospital days that Medicaid would cover for adult Medicaid recipients: Alabama (16); Arkansas (25); Florida (45); Louisiana (15, with prior authorization required for additional days); Mississippi (30); Oklahoma (20, reduced to 15 as of December 1, 1992); West Virginia (25); Wyoming (20 days for calendar year 1993, with exceptions for medical necessity); and Oregon. According to the survey response from Oregon, Medicaid "pays regardless of length of stay. Once 18 benefit days have been used, however, the State will not pay for the next admission."

A nationwide survey of hospitals during 1988 found that AIDS patients averaged 28.4 inpatient days per year (Andrulis et al., 1992), exceeding the utilization limits established in many States. This same study reported that the lengths of stay for PWA ranged from 1 to 68 days, with an average of 1.7 admissions per patient per year. Another study of the hospital care received by AIDS patients in Rhode Island during 1991 found that the number of hospital admissions for this group ranged from one to eight during that year (Stein, 1994). AIDS patients with two hospitalizations in a year, at the longer range of the lengths of stay, would easily exceed any of these utilization limits.

Three Medicaid programs placed limits on the length of hospital stay. The Kentucky limit was 14 days for each admission. In Missouri, the number of days for each length of stav was limited to the number of days at the 75th percentile for all lengths of stay for that diagnosis. Hospitals serving a higher-than-average number of Medicaid and other low-income patients are exempt from these length-of-stay limits. The Texas program limited each stay to 30 days and required 60 days without hospitalization between stays. In addition, Texas imposed a \$200,000 cap on hospital payments for each Medicaid recipient per benefit year. There are no exceptions to these Medicaid limits for medical necessity in Texas.

### Average Length of Stay

The questionnaire asked for the average length of an inpatient hospital stay during

Table 4 Medicaid Payment Levels for Hospital Care, by Selected States: 1992

State	All Medicaid Patients	AIDS/HIV Medicaid Patient		
	Medicaid Payment per Admission			
Alabama	\$3,386	<sup>1</sup> \$7,028		
Kentucky	2,988	4,262		
Maryland	<sup>2</sup> 3,653	<sup>2</sup> 7,737		
Michigan <sup>3</sup>	3,407	12,745		
Missouri⁴	2,558	9,070		
New Hampshire	NA	6,480		
New York <sup>s</sup>	6,043	15,973		
North Dakota	2,686	10,420		
Ohio <sup>5</sup>	3,758	<sup>5</sup> 10,193		
Oregon	2,882	6.483		
Utah	3,190	\$8,568		
Wisconsin	3,089	9,850		

The average amount per patient with inpatient claims.

<sup>2</sup> Figures are for 1991.

<sup>3</sup> Figures are for 1993.

Figures are per capita annual.

<sup>5</sup> Figures are for 1993 and are per discharge, not per admission. <sup>6</sup> For DRGs 488-490 only.

NOTES: NA is not available. AIDS is acquired immunodeficiency syndrome. HIV is human immunodeficiency virus.

SOURCE: Buchanan, R.J., University of Illinois, 1992-93.

1992 for all Medicaid hospitalizations and for Medicaid AIDS-related hospitalizations. As Table 5 illustrates, the average for all Medicaid hospitalizations for the 15 States included was 5.52 days.<sup>1</sup> In comparison, the average for Medicaid AIDS-related hospitalizations was more than twice as long, at 13.62 days. The averages ranged from a low of 6.4 days in Utah to 27.1 days in Nevada.

#### **Medicaid Admissions**

The questionnaire requested the average number of inpatient admissions for all Medicaid recipients and for those with AIDS-related illnesses during 1992. Given the complexity of this request, few Medicaid programs were able to provide these data. As Table 5 shows, averages were higher for Medicaid recipients with AIDS-related illnesses than for all Medicaid recipients.

<sup>&</sup>lt;sup>1</sup>An additional 13 States reported the average length of stay for all Medicaid hospitalizations but could not provide such data for AIDS-related hospitalizations; these States were excluded from Table 5. When these States were included in the calculation for all Medicaid hospitalizations, the average was a similar 5.58 days.

State	All Hospitalizations	AIDS Hospitalizations	All Medicaid Recipients	Medicaid Recipients with AIDS
	Number of Days		Rate of Admission	
Alabama	'6.2	_	0.12	1.46
California	²5.3	<sup>3</sup> 11.2		_
Colorado	4.6	<sup>4</sup> 18.1		_
Florida	5.7	12.0	0.13	0.46
lowa	6.0	16.0		_
Kentucky	4.3	10.0	1.40	2.10
Maryland	<sup>2</sup> 5.4	<sup>2</sup> 14.6	'0.20	1.40
Michigan	5.0	12.0		_
Missouri	4.9	6.9	<u></u>	_
Nevada	4.9	27.1		_
New York	'12.0	<sup>1</sup> 19.8	<sup>1</sup> 0.23	<sup>1</sup> 1.47
North Dakota	4.2	14.0		_
Ohio	'4.9	111.7	—	
Utah	3.7	6.4	_	_
Wisconsin <sup>4</sup>	5.8	10.8		_
Average of States				
Reporting Data	5.52	13.62	0.417	1.379

 Table 5

 Medicaid Utilization of Inpatient Hospital Care, by Selected States: 1992

Figures are for 1991.

<sup>2</sup>Figures are for 1990.

<sup>3</sup>Figures are for 1988.

<sup>4</sup>Figures are for 1993.

NOTE: AIDS is acquired immunodeficiency syndrome. SOURCE: Buchanan, R.J., University of Illinois, 1992-93.

## SUMMARY AND CONCLUSIONS

All States and three-quarters of the counties or health districts in the United States have reported AIDS cases, with rural America experiencing the greatest rates of increase. With Medicaid programs becoming the majors payers of AIDS- and HIV-related care, the Medicaid policies of all States will affect the care received and will have an impact on hospitals providing this care.

The survey of the Medicaid programs conducted for this research documented that a number of States pay hospitals using a prospective payment method (typically using a per diem rate) that does not vary by diagnosis or care needed. Payment methods that establish predetermined, fixed payments can discourage hospitals from admitting Medicaid recipients needing expensive care, such as patients with AIDS. In contrast, Medicaid programs using DRG payment methods recognize that AIDSrelated care is more costly to provide. The hospital utilization limits established by many Medicaid programs can also create barriers to treatment for Medicaid recipients with AIDS and place financial burdens on hospitals. To improve patient access and alleviate the burden on hospitals, Medicaid programs should consider basing payments on diagnosis and eliminating utilization limits.

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